DVB Satellite Receiver
UFD 515
with Common Interface

KATHREIN

Antennen · Electronic

Preface

Dear Customer,

The following operating manual will help you obtain the best optimal use from the extensive features of your new satellite receiver.

We have written this operating manual as comprehensibly as possible and as concise as necessary. A brief lexicon containing specialised terms not easily translatable has been appended at the end of this manual. To further assist you in your search for a specific term, we have also added an index.

We have taken the environment into account with the mains switch. Therefore, during longer pauses separate your receiver from the mains, in order to save energy. During short pauses, you should switch the receiver to standby with the remote control, so the least amount of energy is consumed.

We wish you a great reception and much enjoyment with your new satellite receiver.

Your,

KATHREIN-Team

Important notes

If you have any unexpected problems with your receiver, please contact your specialist supplier through our hotline.

Tel: (08031) 18 47 00

Fax: (08031) 18 46 76

With regard to the programme allocation of the satellites and transponders, changes always occur. In such cases, it is necessary to carry out new programme settings, although factory pre-programming is always in accordance with the respective, newest developments. You can gather the details for the new setting from teletext on SAT 1, the internet, or respective magazines.

Your receiver has been equipped with the newest respective software at the factory. We are always trying to adjust the software to the desires of our customers and the state-of-the-art technology. Refer to section "Software and programme lists update," for more information.

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DiSEqC™ is a trademark of Eutelsat.

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Safety instructions

Important notes regarding operation

The following section contains important information relating to the operation, place of installation and connection of the receiver.

Read these notes carefully before putting the unit into operation.

Extended absence / thunderstorms

Always switch the unit off via its mains switch (at front left on unit) during periods of extended absence or at the onset of thunderstorms. This also applies to any other equipment that is connected to the receiver.

However, take into account any possible timer programming and switch the unit on again in good time prior to the recording time.

Mains lead

Make certain that the mains lead (power supply lead) is undamaged. Never put the unit into operation if the mains lead is damaged.

Cleaning

Withdraw the mains plug before cleaning the unit. Use a dry cloth for cleaning. Clean the surface only and nothing else.

On no account open the housing. There is a risk of electric shock if components within the unit are touched.

Children-at-play

Pay attention that children do not insert objects into the ventilation slots. There is a risk of mortal danger due to electric shock.

Repairs

If your receiver needs repairing or changes to settings, have qualified specialists carry this out. Unauthorised opening and attempts at repairs entail loss of guarantee.

The unit's electrical safety can be affected by improper tampering with it.

The manufacturer's liability excludes accidents occurring to the user when the unit is opened.
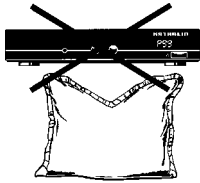
Connections

The unit may be rendered inoperative or not work properly if the connections are not wired up properly.

Safety instructions

Important notes for siting and installation.

Place of installation

Every electronic device generates heat. The rise in temperature, however, lies within a safe range. Slight colour changes may occur to sensitive furniture surfaces and veneers over the course of time due to the constant effect of heat. In conjunction with treated furniture surfaces, the unit's rubber feet can likewise give rise to changes in colour. Where necessary place the unit on a suitable pad.

Ventilation
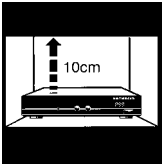
The heat that is generated in this unit is dissipated quite adequately. Never install the receiver in a cabinet, shelf or rack with inadequate ventilation. Never close off the cooling slots on the unit.
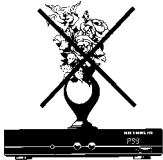
Do not place objects on top of the unit. Maintain a clearance of at least 10 cm above the unit so that the heat generated within the unit is conducted away without obstruction.

Humidity, exposure to sunlight, heat
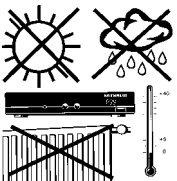
Protect the unit against humidity, drips and splashing.

Do not place the unit close to radiators nor expose it to direct sunlight.

Mains voltage

Operate the receiver only from a 230V / 50 Hz mains voltage.
The unit must not be connected to the mains and switched on until after the connections have been set up for the antenna and TV set.

Grounding

The parabolic antenna is to be grounded in accordance with regulations. The relevant local and/or German VDE regulations are to be complied with here.

Controls, displays and connections

This section contains a brief description of all the control elements, displays and connections. The key symbols presented here are also used when describing operating sequences.

View of front panel

(Flap folded down)

View of rear panel

Front panel controls and displays

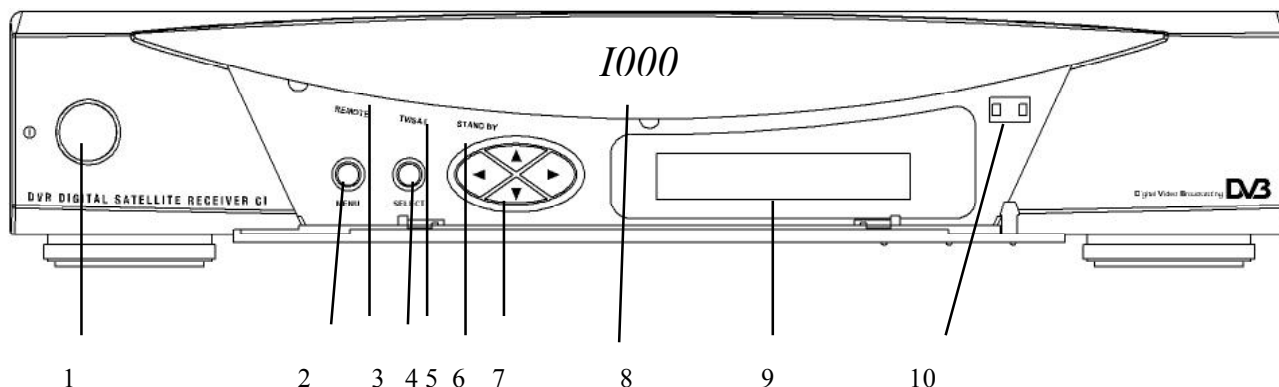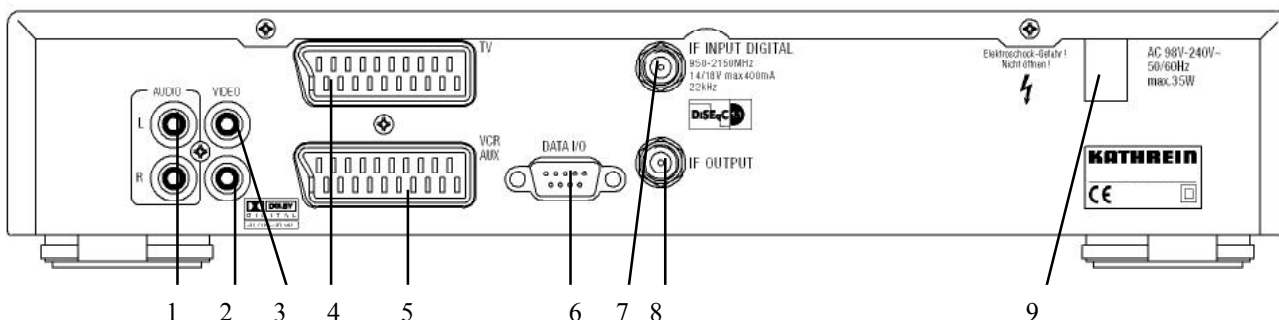1   On/Off switch (with mains separation)

2   Menu button to call up or exit from menus or submenus

3   Indicator to confirm remote control signal

4   Select button to confirm a selection

5   Power indicator

6   Standby indicator

7   Cursor keys to step through menus and programmes, and for adjustment of the volume (corresponds to the remote control)

8   LED display (4-charachter 7-segment display) for display of programme position, time, play and record

9   Common interface for Pay-TV cards*)

10   Pressure catch for front flap Open by lightly applying pressure on the upper right-hand side

Rear panel controls and displays

1   Audio output 2 Cinch sockets, left and right channel

2   Dolby Digital-output (AC3)

3   Video output (FBAS)

4   Scart socket TV connection

5   Scart socket VCR/AUX connection

6   DATA socket Interface for serial data transmission (Service)

7   Satellite IF signal input Output of the LNB supply voltage and control signals (22-kHz and DiSEqC 1.1)

8   Satellite IF signal output looped-through Sat IF signal

9   Mains voltage supply line

*) CA module and Pay-TV cards are not included in delivery.

Controls, displays and connections

Remote control handset keys

(A/B) Switch over of the remote control

(F) Calls up the last 4 programmes / favourite categories

(🕒) Programme info EPG programme guide Locks channels

(ℹ) Programme lists Programme info Help

Programme selection / Selection of submenus and menu entries

Mute (On/Off)

(0) … (9) Numerical input for programmes, parental lock, LO frequency etc.

(⏻) Power On - Standby

(M) Calls up main menu/ Adds a new channel

(L) Last programme and exit Locks a channel

(TV) Setting Scart connection Radio Off Deletes a channel

Volume / Menu entries

(OK) Confirmation of the submenus and main entries

(R) Radio On/Off Selects mode of programme lists

(∞) Sound selection menu / Language selection Moves channel to another position

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Command of remote control

The remote control features 2 command sets, making it possible to operate 2 receivers independently of each other in one room (not together with a twin receiver).

Note

For this purpose, program one receiver on the command set 1 and the second receiver on the command set 2.
Switch on receiver 1 and receiver 2 off with the mains switch

Press and hold the 🅐🅱 button.

Enter "901" with the number buttons.

To adopt the code, press the ⏻ button to switch receiver 1 to standby and then switch off the device with the mains switch.
Put receiver 2 into operation again.

Press and hold the 🅐🅱 button.

Enter "902" with the number buttons.

To adopt the code, press the ⏻ button to switch receiver 2 to standby and then back into operation. Now switch on receiver 1 again.

Press and hold the 🅐🅱 button.

Enter "903" with the number buttons.

When carrying out the first two settings, the remote control must be directed at the respective receiver (when switched on).

By pressing the 🅐🅱 button, you can now switch between the two command sets A and B (toggle function) and alternately operate both receivers.
Command set 1 is always active as the on-delivery setting.

If you are operating only one receiver and the active command set is switched over by mistake so that this receiver can no longer be operated, the remote control can be easily switched back to command set 1. The procedure is already described above.
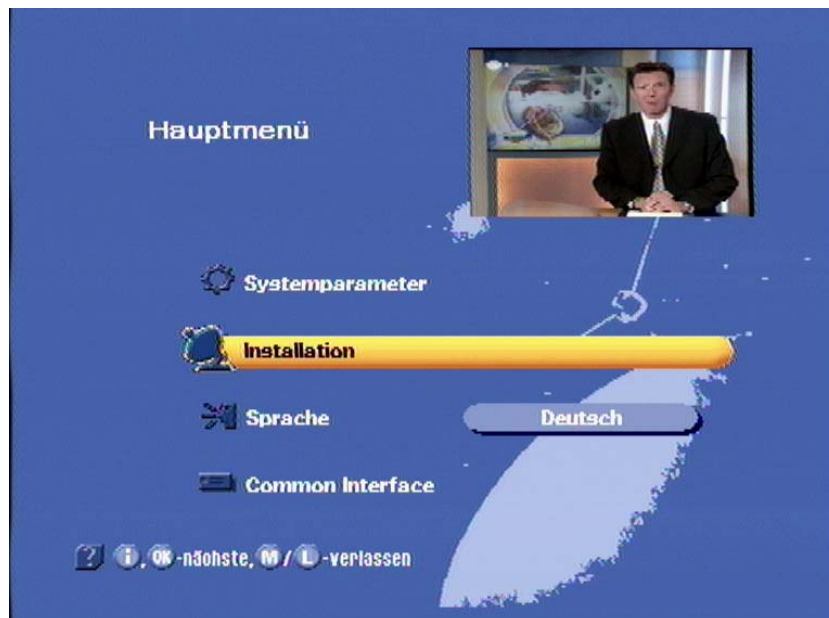
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Operating instructions

Menu concept

The menu concept is set up in a logical operating sequence.

The current selected programme always appears in the upper right-hand corner of the screen.

Note:

Observe that the toolbar on the bottom of the picture with the instructions for the respective menu point.

Hauptmenü

⚙ Systemparameter

🔵 **Installation**

✂ Sprache   **Deutsch**

▭ Common Interface

② ⓘ, OK -nächste, Ⓜ / Ⓛ -verlassen

The selected menus, submenus and menu items as well as the parameters to be set are respectively highlighted with a coloured bar.

Press Ⓜ button to select the main menu and press the ⬆⬇ buttons to select the submenus.

Press OK to access the submenus. The items in the submenus are selected by pressing the ⬆⬇ buttons.

The settings allocated to specific menu items are executed either by pressing the ◀▶ buttons or the number buttons.

Press the Ⓛ or Ⓜ to exit the main menu, submenus and menu items.

Button functions

ⓘ is a changeover button (main channel list or help function) with menu function. Press Ⓛ to exit the setting.

Ⓣⓥ is a changeover button. Identifier self-deleting. In function programme list: Deletes a channel.

⓪ is a switch-on button with menu functions.

Press Ⓛ to exit the setting. In function programme list: Moves the channel to another position

Ⓒ is a switch-on button with menu functions.

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Operating instructions

Press Ⓛ to exit setting. In function programme list: Locks the programme

Ⓕ is a switch-on button with menu functions. Press the button again to exit. In function programme list: Makes a channel a favourite channel.

Ⓡ is a function selection button for radio and TV. In the recording mode preparation of a recording. In the function programme list: Selection of mode of programme list.

Ⓑ is a function selection button. Press button once again to change function.

Alphanumeric entries

Use the number buttons to enter the programme and satellite names. They produce numbers and letters in the name fields of the corresponding menus. Position the bar cursor on the name field. The first position automatically assumes a dark background. You can now also enter letters with the number buttons by pressing the corresponding button several times. For example, A, B and C — are additionally allocated to the "2" button (see table on next page).

Operating instructions

Alphanumeric assignments of number buttons on the remote control

Button	1 x	2 x	3 x	4 x	5x
①	1	.	,	?	1
②	2	A	B	C	2
③	3	D	E	F	3
④	4	G	H	I	4
⑤	5	J	K	L	5
⑥	6	M	N	O	6
⑦	7	P	R	S	7
⑧	8	T	U	V	8
⑨	9	W	X	Y	Z
⓪	0	SPACE	0	SPACE	0

Language selection- OSD

To select the language for the on-screen menus press:

Ⓜ → ▲▼ → menu language → ◀-+▶ → English → Ⓜ

The available languages are German, English, French, Italian, Spanish, Portuguese, Dutch, Greek and Turkish.

Connection and start-up

The following section is specifically intended for the specialist dealer. You only need to read this section if you are carrying out the installation yourself.

You will find sample configurations in the section "Connection examples".

First, carry out all installation work before connecting the receiver to the mains power supply.

Refer to the information provided in the section "Safety instructions".

Connecting receiver

Sat-IF connection

Connect the Sat-IF input of the receiver to the satellite receiving system (satellite dish).

Use a coaxial cable with a standard F connector for this purpose.

If you need to fit the F-connector onto the cable, strip the cable insulation as shown in the diagram and slide the F-connector onto the cable, then turn it clockwise until it locks.
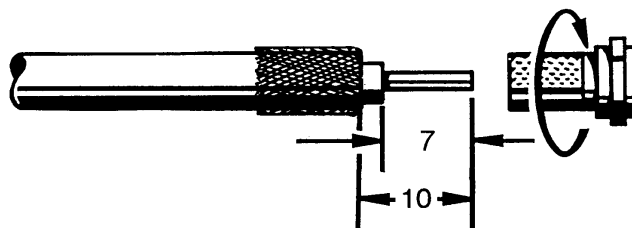
When fitting the connector, make sure that no wires of the shield braid make contact with the inner conductor. This could otherwise cause a short-circuit.

The quality of the reception signal depends on a good connection!

Preconditions for receiving signals

Make sure that your satellite antenna system is equipped with at least one universal LNB to facilitate digital reception in the high band range.

Presetting of receiving system

The control signals for conventional receiving systems (satellite dishes) are preset, i.e. 14/18 V for polarisation changeover and 22 kHz switching signal for LOW/HIGH band changeover on multifeed reception systems.

The presetting will need to be changed in the installation menu, menu item "DiSEqC," if UFO or tone burst switching matrices are used in the receiving system.

Refer to the section "Installation menu, DiSEqC menu" for this purpose.

It is important that you observe the application information provided for the matrix used.

Connection and start-up

LNB supply voltage

If the feed system (LNB) is powered by an external supply voltage and the LNB supply voltage is not used for switching polarity, the LNB supply of the receiver must be set to "OFF" (see section "Installation menu, LNB configuration").

TV and video recorder connection

Use a SCART cable to connect the satellite receiver (TV SCART socket) and TV set.

If your TV set is equipped for stereo output, you can receive the sound in stereo via the SCART connection.

Also use a SCART cable to connect the satellite receiver (VCR/AUX SCART socket) and the video recorder.

Audio connection

If you wish to reproduce the sound via a hi-fi system, connect a corresponding Cinch cable from the audio Cinch sockets on the receiver to the input sockets on your hi-fi system.

Dolby connection

The Dolby digital data stream output (AC3) is for the connection to a Dolby digital system.

Inserting batteries in the remote control

Remove the cover on the battery compartment on the underside of the remote control.

Insert the two supplied batteries in the remote control. Ensure correct polarity of the batteries, the + and – markings are indicated inside the battery compartment.

Slide the cover back into the casing and lock in position.

Used batteries are special waste!

Therefore, do not throw batteries into the household waste, but rather deposit them at a collection depot for old batteries!

First time installation

The first steps

Connect the receiver to the mains power supply.

Switch on the receiver by pressing the power button on the front of the unit.

The display, "**- - - -**," appears in the LED display.

When the LED for the operating display is red, the television is in standby.

Switch on the receiver by pressing the ⏻ button on the remote control.

The orange LED on the front panel of the receiver flashes every time a button on the remote control is pressed.

You will see the factory set programme on your TV screen. An information bar indicating the programme provider, the time, the timer settings, the programme status and the programme title will be displayed in the bottom section of the screen, provided the corresponding data are transmitted. The number of the programme memory appears in the LED display.

The red standby indicator goes out.

You can now receive the factory set TV and radio programme and select it by pressing the ▲ ▼ buttons. Press the Ⓡ and ▲ ▼ buttons to select radio programmes. Press the Ⓡ or Ⓣⓥ button to return to TV programmes.

Refer to the section " Programme lists – TV/radio" for information on how to set up and save other TV and radio programmes.

The reception status last set always reappears when the receiver is switched on.

Please check the time of day for summer or winter.

If the message "bad or no signal" appears on the screen in addition to an on-screen display indicating the programme last received, you will need to check the system installation and/or the receiver settings. If this problem only applies to individual programme slots, the problem may be due to an interruption in the transmission signal or a fault in the receiving system (cable or satellite system).

In this case, first check the connection configuration and then check whether the basic settings of you receiver are correct for your system. If necessary, have a specialist do this for you.

Factory setting of receiver

Your receiver is pre-programmed to receive the ASTRA and HotBird satellites as well as 10E and 16E, TurkSat 42E, Telecom 5W and 8W. You will normally not need to make further settings. If you are not connected to a communal or party system, you need a multifeed arrangement with at least two LNBs in front of the satellite dish, in order to receive both satellite systems or other satellites. Please ask your dealer.

Before you change the basic settings of your receiver, note down the settings in the form provided at the end of this operating manual. You will then be able to restore the original settings at any time.

On screen displays / OSD

Important screen displays

The receiver functions are controlled by a microprocessor and an extensive software. The following explanations are intended to improve understanding of all procedures and to minimise the risk of mistakes. Press the ℹ button.
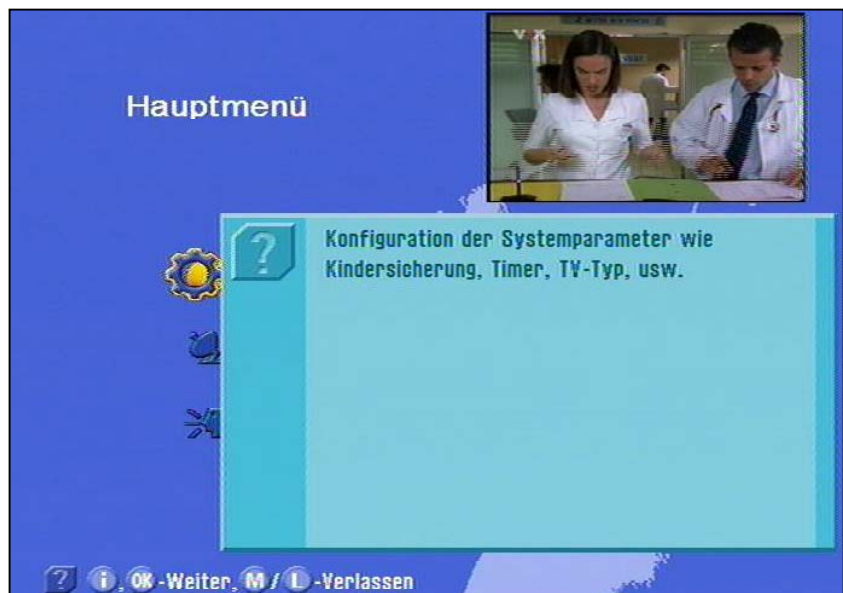
Help function
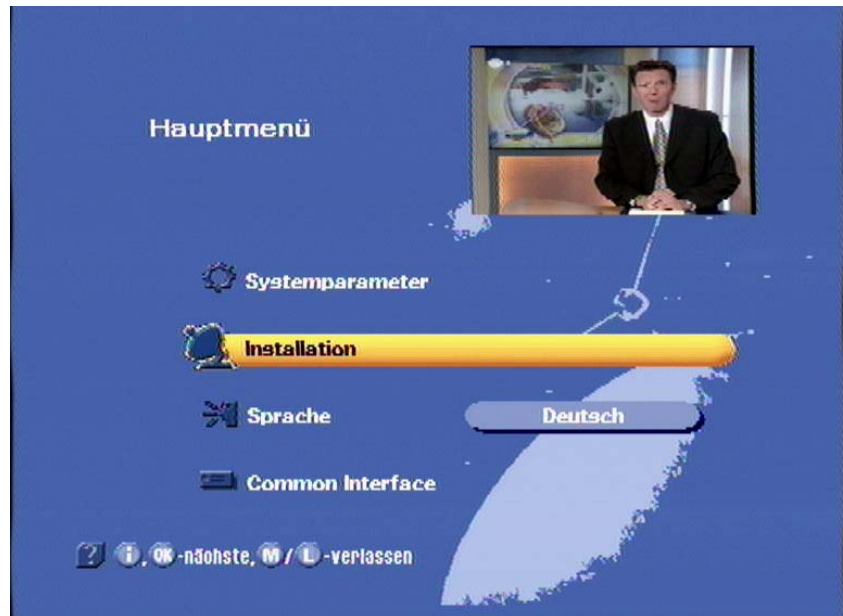
You can call up the help function for each menu and menu function. This help function gives you a short illustration of all the important functions of the selected menu item. For example, access the main menu by pressing Ⓜ

The help display for the menu item 'System parameters' appears when you press the ℹ button.

You will find a detailed description of the called menu item in the respective capital of the operating manual.

On screen displays / OSD

With the (L) or (i) button, exit the help function and return to the main menu. Press the (L) button again and return to the originally received programme.

TV channel identifier

The channel identifier is displayed for several seconds every time the channel is changed or by pressing the (OK) button. The **i** indicates that a channel is received even if no picture can be seen (e.g. radio). The film symbol indicates a TV channel and appears along with the time, and whether teletext is received. The **+** in the third line stands for the programme selection from the main programme list. If the favourite list is selected, the "apple" symbol appears. This is followed by the programme title, as well as start time and end time of the running programme, provided this data is transmitted.

Radio channel identifier

The identifier for the set radio channel has the same configuration. A radio appears in the upper right-hand corner indicating a radio channel. Programme times and text are displayed only if the corresponding data are transmitted with the signal.

Error message
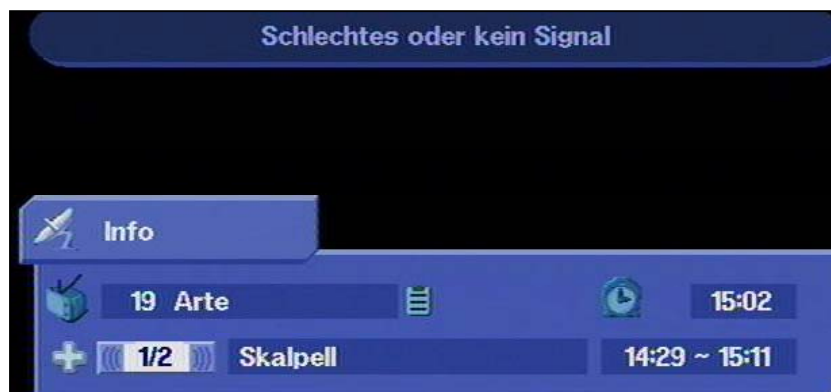
"Bad or no signal" indicates that there is a fault in the receiving system or in the receiver settings. If the transponder is not transmitting any signals, the channel identifier shows a Sat antenna instead of **i**.

Check the Sat IF connection and the LNB configuration. As an aid, refer to the list of service settings provided at the end of the user's guide.

On screen displays / OSD

Programme list – Radio/TV

Press the 🛈 button to access the programme list.

A **+** for the main programme list is indicated at the top left. Information about the channel, programme provider, and whether the programme is normally encrypted is found underneath. The upper-right column contains information about the received satellite, the transponder, and its frequency as well as the polarisation. The desired programme can be chosen by using the bar cursor or by numerical entry and

confirmed by pressing 🆗.

The menu with programme/channel settings is found in the lower right-hand corner. The programme/ channel settings, which were made in the factory, can be changed here. By pressing

🄵 (FAV.) you add the displayed channel to your favourite channels.

🄻 (LOCK) button, you lock the displayed channel.

🅃🅅 (DEL.) delete the displayed channel.

🄼-(ADD) add a new channel.

🅁 (MODE) you select the programme mode and programme list.

🄾 (Move) you move the channel to another position.

For more information, refer to the capital 'Programme selection.'

Teletext

As long as the symbol for teletext is displayed, the receiver processes teletext -also for encrypted signals- for the television set. The teletext

is called up by pressing the 🄾 button and is displayed immediately. The individual pages are called up with the numerical buttons. During the search, a star appears in the upper left-hand corner.

Programme selection

This section describes how you select TV programmes with your receiver and how you can set the desired volume.

For this description of the functions, it is assumed that the receiver has been connected correctly.

If you wish to connect the receiver yourself, please read the section "Connection and start-up" beforehand.

Selecting a TV programme

Reception status

The following information describes how to select other channels and shows what the on-screen displays look like. After switching on the

receiver, simply press the ▲ ▼ buttons in order to select other TV programmes in their ascending or descending order in the channel memory.

Every time you press the button, an on-screen display shows you the selected programme together with the time, the programme start and end times as well as the programme title in the information box, provided this data is transmitted together with the signal.

Press the (OK) button and this information box is permanently displayed. Press the button once more and the display disappears.

You will receive the "channel scrambled" message for scrambled channels.
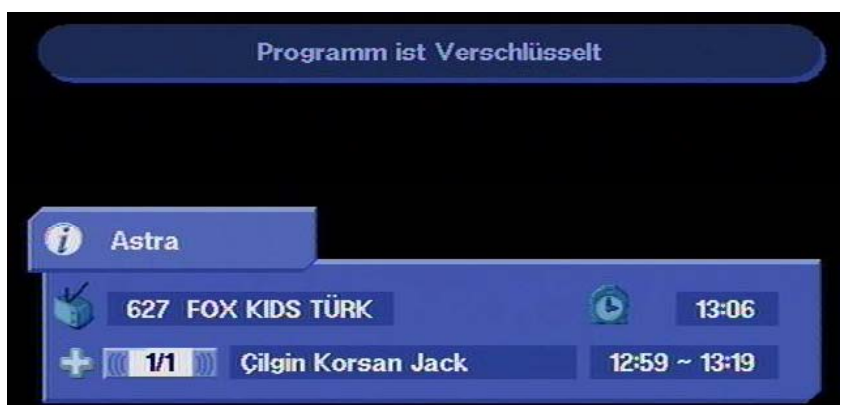
You can receive this programme with the UFD 515 only with CA module and card.

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Programme selection

A further option for selecting a different programme is to press the

🛈 button. The TV programme list is now displayed. The upper right-hand column provides information relating to the received satellites, the transponder and its transmission frequency, the

polarisation, the symbol rate and the scrambling. The left column contains the programme position, the programme name, the type of reception signals (free-to-air/scrambled) as well as the favourite and locked of channels.

With the ⬆️⬇️ buttons, you jump to the next programme, and with the ⬅️➡️ buttons, you jump to the neighbouring page. Confirm your selection by pressing the 🆗 button.

You can also select a desired programme by using the numerical buttons.

Press the 🔱 button to exit the programme list and remain in the already set programme.

Programme selection

Selecting a TV programme by number entry

You can select a different TV programme during a running TV programme by entering the programme location number. Use the number buttons ① to ⓪ for the purpose of entering the programme locations.

Example

You wish to select the TV programme "DSF". This programme is stored under the programme location number 15. (The order of TV programmes is defined in the programme memory, and therefore this only serves as an example.)

To select this programme, press the numbers ① and ⑤ one after the other. The receiver waits for about 3 seconds for entry of the next number.

Follow the same procedure for all other programmes – i.e. also programmes with three-digit programme location numbers. You do not have to enter leading zeros.

Switching to a radio programme

You can switch over from a TV programme to a radio programme.

Press the ⓡ button on the remote control to switch to a radio programme.

The receiver switches over to the programme location of the last set radio programme. You can return to the TV programme by pressing the same button or ⓣⓥ. The corresponding display relating to the received programme, i.e. as when selecting the TV programmes, appears on the screen. The LCD display shows a small **"r"** together with the programme location number.

The screen turns dark after a few seconds.

Reception status - radio

After switching over the receiver, simply press the ◁▲ ▼▷ buttons to select other radio programmes in their ascending or descending order in the programme memory.

Every time you press the button, an on-screen display shows you the selected channel together with the time, the programme start and end times as well as the programme title in the information box, provided this data is transmitted together with the signal.

By pressing the ⓞⓚ button, this information box is permanently displayed. Press the button once again and the information box disappears.

A further option for selecting a different programme is to press the

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Programme selection

button. The radio programme list is now displayed. The upper right-hand column provides information relating to the received satellites, its transmission frequency, the polarisation, the symbol rate, the bouquet and the scrambling. The programme position, the programme name, and type of reception signal (free-to-air/scrambled) are provided on the left. In the upper right-hand field you find the

menu for the menu/ channel setting. Use the ⬆️⬇️ buttons to

switch to the next programme, and with ◀▶ buttons to skip to the neighbouring page. The programme selection is confirmed by

pressing (OK).

You can also select the desired programme with the numerical buttons.

Press the (L) button to exit the programme list and remain in the already set programme.

Selecting a radio programme by number entry

You can select a different radio programme during a running radio programme by entering the programme location number. Use the

number buttons (1) to (0) for the purpose of entering the programme location number.

Example
You wish to select the radio programme "DLR-Berlin". This programme is stored under the programme location number 15. (The order of radio programmes is defined in the programme memory, and therefore this only serves as an example.)

To select this programme, press the numbers (1) and (5) one after the other. The receiver waits for about 3 seconds for entry of the next number.

Follow the same procedure for all other programmes – i.e. also programmes with three-digit programme location numbers. You do not have to enter leading zeros, unless for accessing teletext.

Common Interface

Observe the operating manual of your Pay-TV provider.

The Common Interface for the insertion of two so-called Conditional Access Modules is located underneath the front flap.

The purchasable Smartcard from the Pay-TV provider, which is suited to a particular encryption technology, is inserted into the CA module. It is not included in delivery.

The cards and modules are issued from the respective Pay-TV provider and contain the subscriber data and data to the respective, paid programmes. These programmes are always encrypted.

Contact a Pay-TV provider, if you are interested in a Pay-TV channel.

You are responsible for inserting the cards.

Safely store the card and the PIN code when not used.

This message appears when the receiver is switched on:


However, a CA module must be available.

You can find which card is located in the Common Access Module via the main menu and the menu „Common Interface." Confirm selection by pressing (OK) .

Via the main menu item „Common Interface" and by pressing (OK), the display appears (each according to the CA-module and card version):
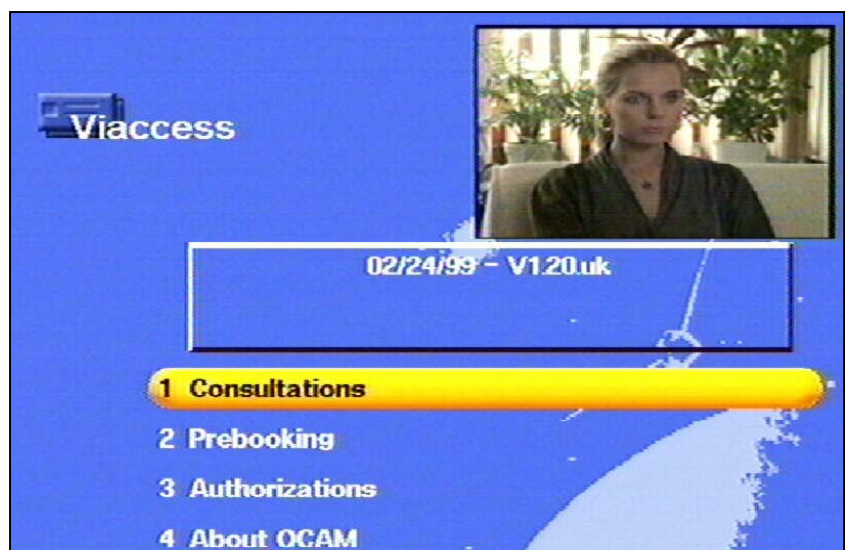
Common Interface

The following displays depend on the module and the card and are, therefore, intended only for example.
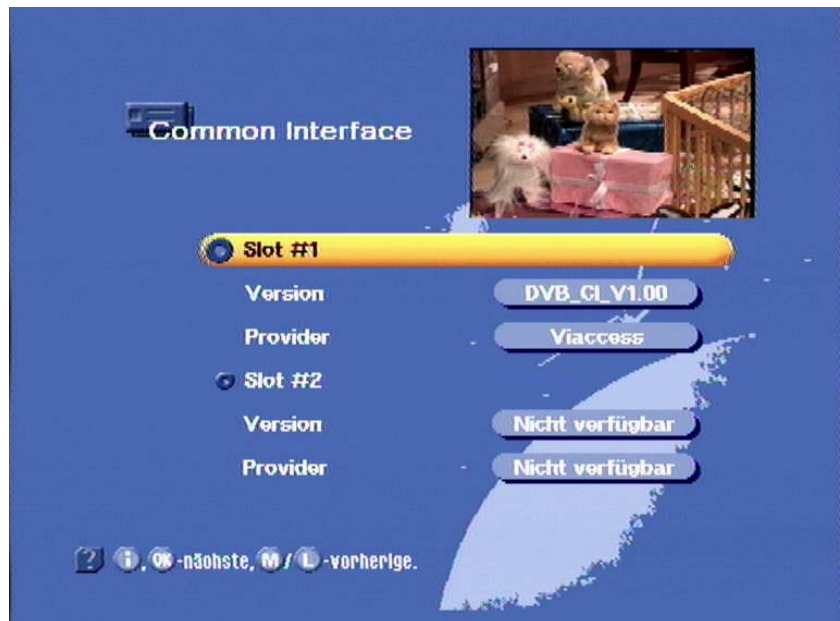
With the (OK) button, arrive in a menu, which is generated from the module. When a card is not available, a message appears.

Via this menu, you obtain access with your card and PIN code to the different programmes of your Pay-TV provider.

Here for example, Viaccess is selected. The data for each CAM can vary.

The displays also appear in English, if you have selected the German menu language for the receiver.

Always pay attention to the instructions from your Pay-TV provider!

Here, select the submenu "Common Interface" with the ◄►◄► buttons and confirm selection by pressing (OK).

Common Interface

Note for the Conax-, SECA-, Viaccess and CryptoWorks user:

Please observe, that the programme providers carry out the clearing of pay-TV cards by different monthly release intervals. Therefore, the clearing can occur a few days before or after the start of the month. During this clearing time, the CA module with the card must be located in the slot of the receiver and the receiver must be switched on as well as set to the booked pay-TV channel. Also observe the instructions of the Pay-TV provider.

The card can be reinitialised with monthly subscription extensions via the CAM menu "CAM reinitialising."

If the clearing of your Pay-TV card does not occur, we recommend to remove the CA module with card from the slot of the switched on receiver and reinsert it.

This note does not relate to the unit's properties, but rather should serve as an aid.

Timer settings

You can use the timer for recording a programme with a video recorder on time. 14 timers are available which you can set for different programmes as well as start and end times.

In the timer setting, press ⓜ to enter the main programme menu, ◀▶ to the system parameters, and ⓞⓚ and ◀▶ to local time / timer and ⓞⓚ. The following screen appears.

Press the ▲▼ buttons to move the cursor to the desired timer and confirm selection by pressing ⓞⓚ. Press ⓛ to exit the timer again.

Incorrect time settings will be rejected.

You can select and set

• the programme type (TV, radio or software download),

• the programme location with name,

• the start time (date, month, year, hour, minute)

• the stop time and

• the timer status inactive/once/daily/weekly and

for 14 timers. You must enter leading zeros for the time settings.

Use the ◀ or ▶ and the number buttons to make the required settings.

The current time, which you must change, appears under the start time. If no other setting is entered, the end time will be set automatically to the same date and one hour after the start time.

Timer settings

Confirm the settings by pressing Ⓜ or Ⓛ three times.

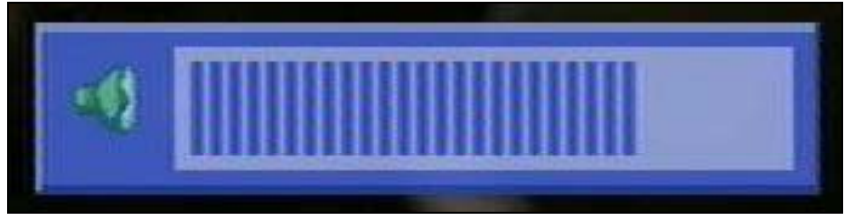**If you have pre-programmed a download per timer, all following timer settings will be ignored after a successful download!**

VPS signal

Make certain, that no VPS signal is included in the digital television signal.

Therefore, you will need to programme your video recorder corresponding to the timer settings.

Sound settings

Setting the volume

Set the required volume level by pressing the 🔘 buttons on the remote control of the receiver. A bar indicator is displayed on the screen to show the set volume.

Stereo and two-channel sound reproduction

The channel identifier, which is displayed by pressing the 🔘 button, shows the set sound reproduction. (Depending on the direction of the sound wave symbols –below the time of day –the sound setting may be mono left, mono right or stereo. The number indicates the number of transmitted sound channels). The programme title is shown in the box on the right.

Untertitel/Audio

Untertitel Sprache	◄	None ►
Audio Track		1 von 1 [Deutsch]
Audio-Modus		Stereo
Dig.Output		Non-compressed

? 🔘-Untertitel Ein/Aus

Press the 🔘 button to call up the audio menu for sound and language selection. You can now make the required settings, e.g. language selection, provided the corresponding data is contained in the reception signal (sound track), Dolby Digital (5.1 CH). Select the

menu points by pressing the 🔘 🔘 buttons and select the

required setting with the 🔘 buttons. Press the 🔘 button once again to exit the menu.

If captions are transmitted, you can select the bar caption language

with the 🔘 buttons and confirm by pressing 🔘 .

AC3

The receiver can process sound transmissions in AC3 format (Dolby Digital) providing you with the opportunity of listening to cinema sound quality in your living room. The digital sound output is provided for this purpose. You will need to connect it to a corresponding system.

Please refer to the instruction manual of your Dolby Digital system.

Sound settings

In order to reproduce the AC3 format, set your receiver to "2 of 2" or "2 of 2 (2ch)" in the audio menu under "Stereo." The corresponding transmission – "5.1 Ch" (5 channels + 1 subwoofer channel) is then indicated at "Dig. output".

Only a few programme providers broadcast the AC3 format. As long as no AC3 signal is received, you can only carry out the usual stereo and mono settings or select the transmitted language.

Switching off sound

Press the ⏯ button on the remote control to mute the sound. This symbol ⏯ appears on the screen.

Press the ⏯ button again to restore the sound. The standard volume display bar is then shown for several seconds.

Even though you can change the programme while in mute mode, it will remain muted until this mode is cancelled or you correct the volume.

Programme list

The programme/channel settings set at the factory can be changed in the menu, "Programme list." Access the menu by pressing the 🛈 button, the ◀▶ ◀▼ buttons as well as ◀▶ for TV or radio and confirm selection with 🆗. If a password is stored, it must be additionally entered in.

Selecting programmes last received

Press the Ⓕ button to display on the screen the four programmes you last received. The arrows correspond to the cursor buttons

◀▲ ◀▼ ◀▶. The allocated programme can then be selected by pressing these buttons.

When this function is called up, the display shown above appears.

Favourite programmes

You can arrange and sort your favourite TV and radio programmes, e.g. all German-language programmes or programmes that have no commercial breaks. These programmes are identified by the "apple" symbol in the TV or radio programme lists, which you access by

pressing the 🛈 button and the cursor buttons and confirm by

pressing the 🆗 button.

With the 🔵🔵 and ◀▲ ◀▼ buttons select the desired programme, which will be highlighted with a coloured bar.

The bar can be shifted page-by-page or line-by-line with the cursor buttons. You can also enter the desired programme number with the numerical buttons.

Press the Ⓕ button to access the list for the favourite selection.
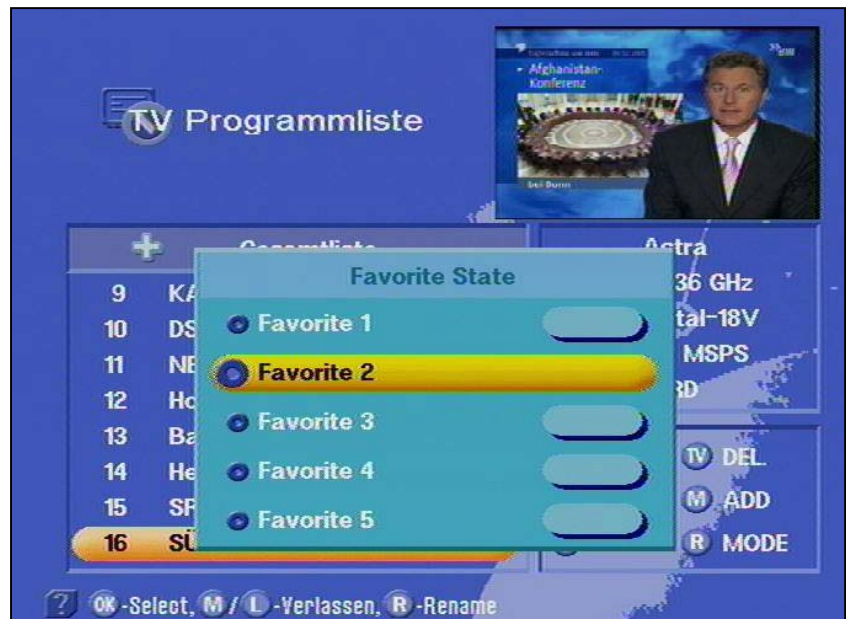
With the ◀▲ ◀▼ buttons, you can select 1 to 5 in the favourite lists where you would like to save your favourite programme. It is possible to save several different programmes in a list.

Each family member can then save their own favourite programmes and call them up at any time. The programmes are protected against unauthorised use with a password entry (refer to capital "Password"). The respective selected list is highlighted with a coloured bar. The called up programme appears in the upper right-hand corner of the screen.

By pressing the ⓞⓚ button the highlighted line will now be indicated with an "apple symbol."

The following programme in the programme list will be called up automatically and appears in the small screen in the upper right-hand corner. The next favourite programme can be marked with the "apple symbol."

You can provide names for the individual favourites, in order for example to arrange the programmes together under favourite list 1, which broadcast favourite "game shows" or "sport" programmes. The name of the user (Peter, Karin, Grandma, Grandpa) can be entered in.

Programme list

Press the (i) button to access the programme list, and with the (F)

button you can access the favourite list. Use the ▲ ▼ buttons to select a favourite programme. It is then highlighted by a coloured bar.

Press the (R) button to be in the writing mode. The first letter is now indicated. You can now enter the desired name of the favourite programme with the numerical buttons (see section in the user's

manual, Alphanumerical entry). Using the ▲ ▼ buttons, you can select the other favourite programmes, and then can newly name them in the same manner as mentioned above.

After finishing the letter entry, confirm it by pressing (OK). You return to the programme list.

Press (M) to return to the television screen. Your changes are saved and confirmed, and an info display of the current received programme appears for a few second on the screen.

In order to call up a favourite programme, access the respective desired favourite list after pressing the (i) and the (R) button.
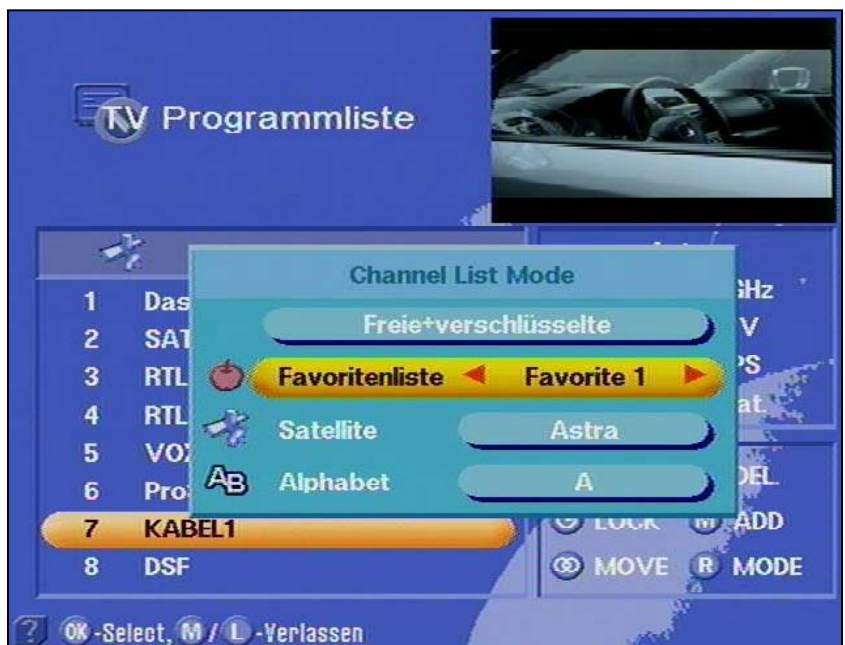
First, select the line with the "apple" symbol with the (▲)(▼) buttons, select the desired list (in the display example "DRAMA" or "Favourite 1") with the (◄►) buttons. The favourite list appears by pressing (OK).

Programme list

With the ⬆⬇ buttons select your desired programme, which is highlighted with a coloured bar and displayed in the upper right-hand corner of the screen. By pressing the (OK) button, your selected favourite programme appears.

If you want to delete a marking, with the ⬆⬇ buttons and (OK), select the favourite list, in which the desired programme is saved, and delete the "apple" symbol by pressing the (F) and (OK) button.

If you would like to return to the programme list (representation of all programmes of the set satellites), first press the (i) and afterwards the (R) button.

Programme list

With the ⬆⬇ buttons first select the "satellite line," and with the
◀▶ buttons select "all satellites." Press OK and return to the current
programme list.

Search programme alphabetically

Receive an overview of programmes with the same initials in a list.
With this, it is possible to quickly find a certain programme from the
entire programme list.

Press ⓘ to access the programme list.

By pressing the Ⓡ button, you access the "channel list mode" list.

Select the bar "alphabet" with the ⬆⬇ buttons.

Search for desired letters using the ◀▶ buttons. The letters can be
called up from both directions. Each letter is displayed in the
"alphabet" bar.

Press OK to confirm the selected letters and a list of all the
programmes appears, which begin with the selected letters.

Programme list

With the ⬆⬇ buttons, you can now determine the desired channel, which is highlighted with a coloured bar. The channel preview appears in the upper right-hand corner of the screen. Confirm you selection by pressing (OK).

In order to return in the programme list (representation of all programmes of all set satellites), first press (i) and afterwards the (R) button. First, select the "satellite line" with the ⬆⬇ buttons, and then with the (-+) buttons select the setting "all satellites." After confirming with (OK), you receive the current programme list.

Sorting programmes

You can sort programmes as desired. The programmes are sorted by shifting the entries in the programme lists.

With (i) access the programme list.

The desired programme list now appears on the screen.

With the (-+) and ⬆⬇ buttons, you can select the programme, which you would like to move. The line with the current running programme will be highlighted with a coloured bar and the programme appears in the upper corner of the screen.

Programme list

With the ⓪ button, you "hold" the programme which is to be moved, It will be highlighted with a different coloured bar. You can now move it to the desired position using the

⊖⊕ and the ▲▼ buttons. Place the selected programme on the respective programme position by pressing ⓞ.

The change is saved and confirmed and appears for a few seconds on the screen. The moved programme appears on the screen.

Deleting programme

Basically, follow the same procedure for sorting in order to delete a programme.

Press the main menu button ⓘ to access the "programme list."

Programme list

Use the ![buttons] and ![buttons] buttons to select the position of the programme, which you would like to delete.

Now, confirm the deletion of the programme with the ![TV] button.

The control programme asks:

Be careful when deleting programmes!

Confirm the desire procedure with the respective buttons.

With the ![OK] button, the programme position is deleted. The change is saved and confirmed and the next programme of the station in the programme list appears on the screen.

Manually adding programmes

Basically, follow the same procedure for sorting in order to add a channel.

With main menu button ![i], access the programme list.

By pressing the ![M] button, the menu for adding a programme appears on the screen.

Here, you can carry out the entries for the new programme.

The first line in the list is highlighted with a coloured bar.

Attention: You can only call up satellites which are included in the installation menu.

With the ![buttons] buttons, you can move the bar vertically to the desired position.

The setting of the respective position, or respective entry, is carried out with the ![buttons] buttons and the numerical buttons.

Programme list

It is possible to set

• the respective received satellite,

• the transponder, the transponder frequency

• the polarisation

• the symbol rate

Only alphanumerical and decimal entries are accepted at the positions

• Name,

• Video PID (Programme Identification),

• Audio PID,

• PCR PID (PCR = Programme Clock Reference) and

• Audio PID dig.

By pressing ⓞⓚ you return to the programme list. The saving of the change is confirmed and the info display of the current set programme appears for a few second on the screen. The new programmes is added to the existing programme list.

You can obtain the necessary PIDs from relevant TV and satellite magazines, the internet as well as from SAT 1 teletext. Refer to section "Operating instructions" for information on how to make alphanumeric entries.

Never change the PIDs without good reason as they affect the identification of the reception signal.

This function is only necessary for programmes, which do not broadcast according to the DVB standard. All standardised programmes are recognised and saved by the automatic search function.

Adding and removing satellites

Setting up a satellite

Naturally, the LNB can also accommodate new satellites.

In order to do so, the orbit position, which you need to take a bearing on, must be known. The "Antenna settings" menu entry in the installation menu can be used as an aid for alignment of the antenna.

Access the menu item "LNB configuration" via the main menu Ⓜ

and the „Installation" - submenu with the ⬧⬥ and ⓄⓀ buttons

(plus password, if activated). You select it with ⓄⓀ and can then enter or select a new satellite.

Remember that your system must be set-up accordingly!
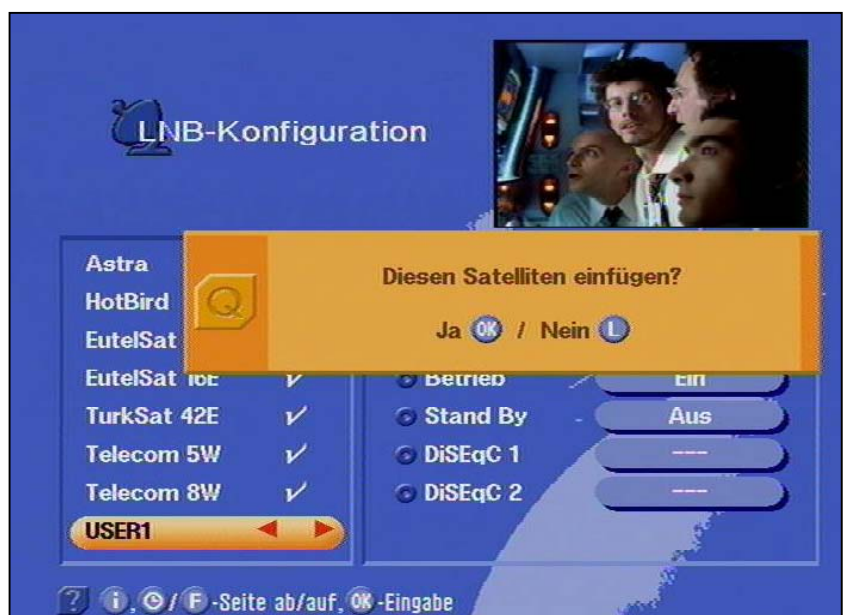
Adding and removing satellites

In the next step, move with ⬆ ⬇ to e.g. the entry „User1".

After pressing the ❨ or ❩ button, you are asked if you want to add the satellites.

Confirm it with 🆗.

The following message appears

Änderungen werden gespeichert

Einen Moment bitte
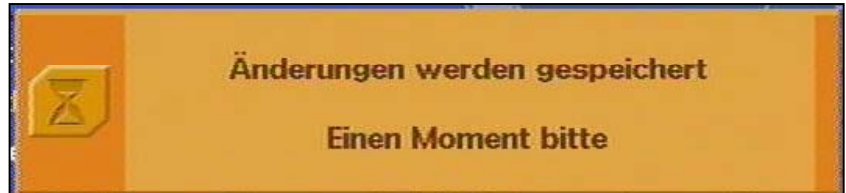
You can now make the respective entries to your receiving system in

the corresponding positions using the ⬆,⬇ and ❨ or ❩ buttons

and exit the menu by pressing 🄻 three times. At the same time the new station data is stored.

Entering a satellite name

You can change the satellite name in the LNB configuration menu using the number buttons. Refer to section "operating instructions" for information about the exact procedure.

Removing a satellite

To remove a satellite, select the "LNB configuration" menu, move the

cursor bar with ⬆ or ⬇ and confirm by pressing the ❨ or ❩

button. You will now be asked whether you wish to remove the

satellite. You can either confirm your selection with 🆗 or cancel

with 🄻.

LNB-Konfiguration

Astra		Diesen Satelliten entfernen?
HotBird		Ja 🆗 / Nein 🄻
EutelSat		
EutelSat 16E	✓	Betrieb — Ein
TurkSat 42E	✓	Stand By — Aus
Telecom 5W	✓	DiSEqC 1 ---
Telecom 8W	✓	DiSEqC 2 ---
USER1	◀ ✓ ▶	

ℹ, 🔵/ Ⓕ -Seite ab/auf, 🆗 -Eingabe

Programme overview

EPG

With the ⏰ button, you receive an overview of the programmes (see on-screen display) currently received from the transponder with time and duration, provided that they are broadcast with electronic programme guide (EPG), for example, with ARD and ZDF. In the right-hand column, the programme title is given in abbreviated form, and the complete title appears in the last two lines. In the left-hand

column, the ▲ ▼ keys can be used to move the cursor to a programme which should

be switched to with the (OK) button.

With the 🔘 button, receive more information about the current running programming.

With the EPG button ⏰ and Ⓕ, you receive the programme

overview of the currently received transmitter with time and duration (see on-screen display), provided that they broadcast the electronic programme guide (EPG).

The length of the programme list depends on each programme provider and can cover several days.

EPG timer programming

Afterwards, you can move the coloured bar in the list with the

⬥⬥ buttons and select a programme for timer programming. The timer is selected with the 🅡 button.

Here, you can select different timer settings with the ⬥ or ⬥ buttons, for example, if the desired programme should be recorded only once, daily or weekly.

Confirm the selection with 🆗. The confirmation appears for a few seconds. The programme will be recorded at the set time.

Press 🄻 two times to leave this position without a timer setting.

Password

You can prevent your satellite receiver to be used by unauthorised persons by means of a password. With this password, you can ensure your reception settings are not changed by others. At the same time, you can activate the parental control function to lock out various programmes.

Keep your password in a safe place, so that you always have access to your channels should you ever forget it.

Factory setting

The password „0000" is inactively set in the factory.

Entering a password

Call up the main menu using the Ⓜ button.

In this menu, press the ◄►◄▼► buttons to select the "system parameters" and confirm by pressing Ⓞⓚ.

Now press the ◄►◄▼► buttons to select the "parental control" function and confirm by pressing Ⓞⓚ. You may be asked to enter a password.

Password
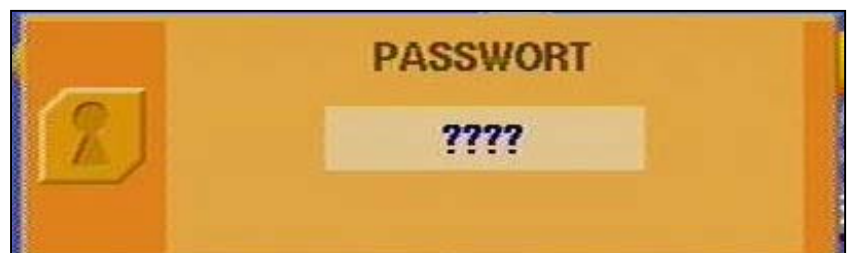
Carry out the following settings in this on-screen display:

Age limit: This setting is only effective, if the corresponding lock-out signals are sent together with the transmission.

Lock list: Yes/No. With this option you can lock or unlock the editing function for programme lists.

Lock installation: Yes/No. With this option, you can lock or grant access to the installation menu.

New password: Here, you can enter your (new) password with the aid of the number buttons.

Confirm password: Here, you enter your (new) password once again with the number buttons to serve as a confirmation.

Personal: Here, enter the receiver identification which is displayed when the receiver is turned on. This is useful for identification in case of theft. See section "Operating instructions" for information on how to use the numerical buttons on the remote control for alphanumerical entry. The factory setting is „UFD 515".

You have now undertaken all the settings for safeguarding and identifying your satellite receiver.

If you have forgotten your password, you must contact your provider who can unlock your receiver again.

Password

Parental lock

You can set the parental lock in a manner similar to that used for marking favourite programmes with the "Apple" symbol. This denies children access to unsuitable programmes. The "Padlock" symbol is used to identify the programmes in the "TV" or "radio" programme lists.

Press 🛈 to access the programme list.

Select the programme you want to lock using the ⬆⬇ - and ◀▶ buttons.

You can move the bar page-by-page or line-by-line with the ◀▶ and ⬆⬇ buttons.

The selected programme will be indicated by a coloured bar.

Confirm the selection with the 🕒 button and the "padlock" symbol appears in the bar.

The display of the following programme in the programme list automatically appears.

Press 🕒 to lock another programme or press the 🕒 button again and the lock will be removed and the "padlock" symbol disappears.

Press 🆗 and the saving of the change is confirmed. Afterwards, the following programme in the list and for a few seconds, the info display appear.

Password

After calling up the locked programme with the number keys, the message, "This programme is locked" appears and the programme can not be seen.
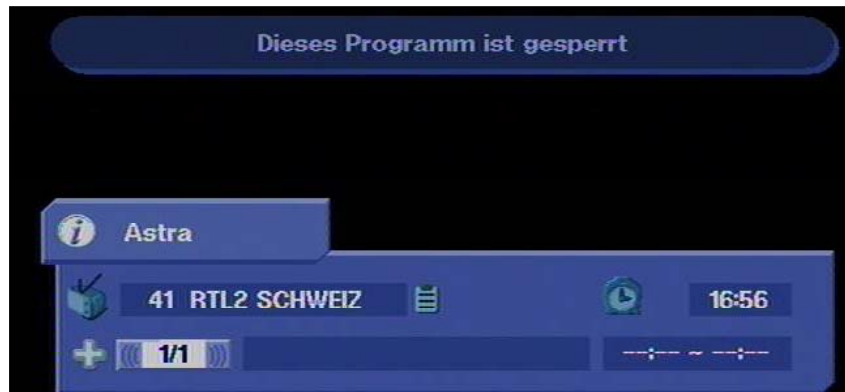
After pressing ⓛ and calling up a locked programme over the programme list, you will be asked to enter in your password in order to watch the locked programme.

Operation from front panel

If you have misplaced the remote control or the batteries are empty, you can still operate you receiver from the front panel.

Backup operation

On the front panel, there are 6 buttons at your disposal.

The On/Off button, menu, select, and the cursor buttons with horizontal and vertical arrows.

The unit is switched on and off with the On/Off button.

The menu button, like the (M) button, brings you to the main menu.

The vertical arrow buttons have the same function as the ▲ ▼ buttons and bring you to the submenus.

The horizontal arrow buttons have the same function as the (–+) buttons.

The select button has the function of the (OK) buttons.

Since there are no numerical buttons, no functions protected by the password can be called up.

Setting system parameters

The following settings should not be altered without good reason, since they are factory settings or operational settings, matched specifically to your receiving system.

Only extensions to the receiving systems or modifications call for new settings.

The selected menus, submenus, entries, and parameters are highlighted. The menus are mainly self-explanatory.

Press the 🛈 button to receive information about the respective selected menu item. Press the button 🛈 again to exit the help programme.

The main menu consists of the following submenus:

- System parameters,

- Installation,

- Language menu,

- Common Interface.
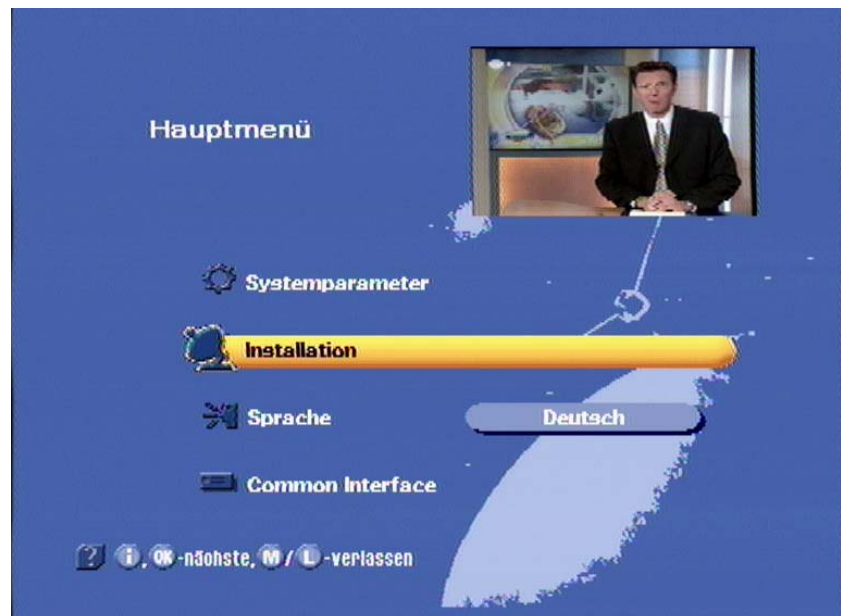
Setting system parameters

System parameters

Select the menu „System parameters" with the (M) menu button, the
(▲)(▼) buttons in the main menu and (OK). With (▲)(▼)
buttons and (M), you can call up other positions.

Parental lock

The basic settings that can be implemented here are described under
setting parental lock in chapter "Password."

System information

Under the „System information" entry, you will find the factory
settings, which cannot be altered and are intended solely for service
personnel.
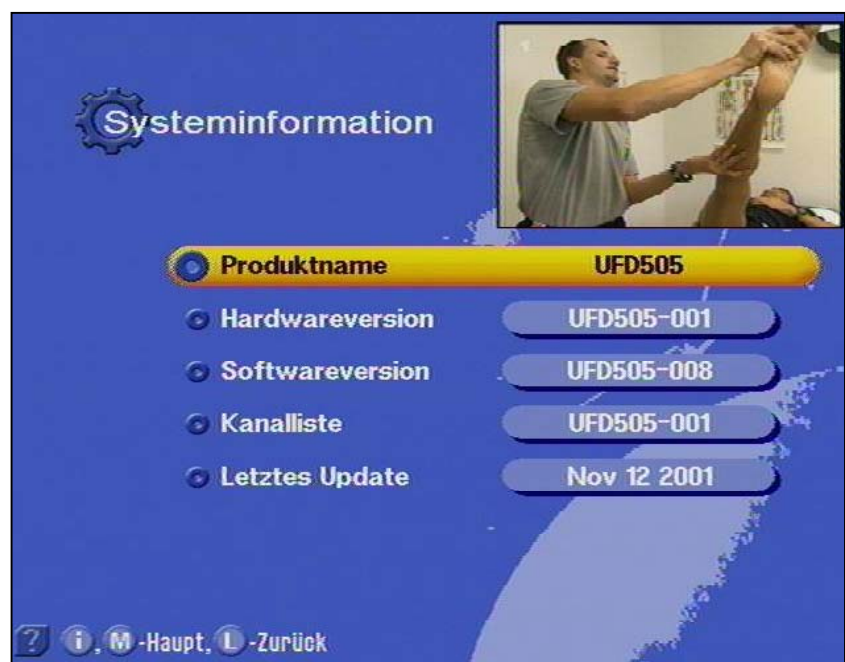
Setting system parameters

With ⊛ or Ⓛ , return to the submenu system parameters.

Local time/Timer

The receiver displays the UTC time transmitted with the data stream (United Time Coordinate, former Greenwich Mean Time). Therefore, in Germany, the time must be corrected by +1 hour.

A correction of the summer time is possibly required in order for the timers to turn on and off at correct times.

You can make this correction yourself using the numerical buttons.

Move the cursor bar with the ◄► button to the entry 'Local time/Timer.' The first digit in the time entry is shadowed. You can now correct date and time with the numerical buttons. After each entry, the cursor jumps to the next position. Press the Ⓜ two times to end the entry. The receiver saves the new setting.

Afterwards, do not switch off the receiver with the mains switch but rather with the remote control, otherwise the settings will be lost.

TV type

Use the ◄► buttons to specify whether your TV set is a

- PAL,
- Multi-standard or
- NTSC unit

Confirm by pressing Ⓛ two times.

Picture format

Use the ◄► buttons to select the type of picture format, either

- 4 : 3 format or
- 16 :9 format.
- Auto

Confirm by pressing Ⓛ two times.

Screen

Use the ◄► buttons to select the type of screen display:

- conventional (P/S) = standard representation for 4:3 units or
- wide screen picture (letter box display off) - in this settings, the wide screen is required for the 16:9 unit.

Confirm by pressing Ⓛ two times.

Setting system parameters

A/V mode

Here, you use the ⬥ buttons to select the type of video signal which is present on the Scart socket. Select the signal which your TV set is able to process.

Observe the operating instructions of your television set!

• FBAS –composite baseband signal (colour-/picture-/blanking-/synchronising-signal)

• RGB – red-/green-/blue-signal

• Y/C – S-VHS signal (luminance/chrominance).

Confirm by pressing Ⓛ two times.

Installation menu

You should not change the following settings without good reason as they represent factory settings or operational settings that are adapted to your receiving system.

New settings are only required when changes or expansions are made to the receiving system.

The main menu consists of the following submenus:

Select the "Installation" menu with the menu button Ⓜ, the ▲ ▼ buttons in the main menu and ⓄⓀ. If set, you must also enter the password. Select the menu points with the ▲ ▼ buttons.

LNB configuration

The first submenu is the "LNB configuration". Press ⓄⓀ to open this menu. Normally, you should not make any changes in this submenu.
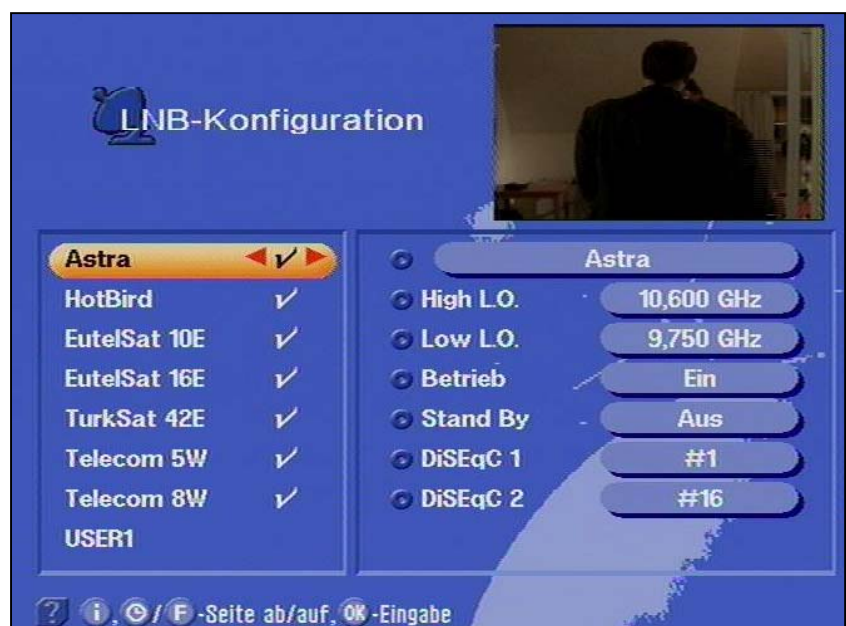
Before making any changes, however, you should make a note of the settings in the form provided at the end of this User's Guide.

Your receiver is set at the factory to the satellites of the ASTRA and

Setting system parameters

HotBird systems.

The other basic settings are shown in the illustration.

Oscillator frequency L.O.

Satellite receiver systems consist of the parabolic antenna (satellite dish) with the actual receiving system mounted in front of it (LNB – Low Noise Block Converter or LNC - Low Noise Converter), which converts the RF signals of the satellite to a lower frequency, so it can be processed by a satellite receiver.

The satellite transmission frequencies are within the following ranges:

10.7…11.7 GHz   Low-band (Low-band / analogue transmission)

11.7…12.75 GHz   High-band (High-band / digital transmission)
                   (valid for ASTRA satellites at 19,2° E)

The reception frequency of the receiver, however, is in the range from 950 to 2150 MHz. The high frequencies are therefore converted with the aid of the oscillator frequency (LO frequency / LO = Local Oscillator of the LNB) to a lower frequency. Various oscillator frequencies are used for this purpose depending on the satellite frequency range and the type of system.

For ASTRA and Eutelsat receiver systems, this frequency is normally 9.75 GHz (9750 MHz) for the lower frequency range (low-band) and 10.6 GHz (10600 MHz) for the upper frequency (high-band). Older receiver systems still operate in the low-band range with a 10 GHz oscillator frequency.

The receiver generates its required frequency by subtracting the oscillator frequency from the satellite transmission frequency stored for each channel. You only need to set the oscillator frequencies, which your receiver system actually uses. Therefore, before changing the LO frequency, make sure that this is at all necessary.

The oscillator frequencies shown at the top of the picture are factory settings.

Changing the oscillator frequency

Move over to the right-hand side in the LNB configuration menu by pressing (OK) and the setting for LO High will be highlighted in colour. Using the number buttons, you can now enter a frequency matching your system. The same also applies for the LO Low setting. Press the

buttons to go to this setting.

Exit the menu by pressing (L) 4 times. The receiver will simultaneously confirm that the values have been saved.

If a setting is incorrect, you will see the following message on the screen :

Bad or no signal

Operation

Factory setting is "on."

Normally, the power supply should be switched on.

For communal or party systems, you must check whether the supply voltage must be switched off!

Setting system parameters

Standby

Under this menu point the supply voltage for the LNB in receiver standby mode can be switched on and off. It can be switched off for individual and communal systems. The factory setting is "OFF." Reception of 2 satellites.

If your receiver is connected to a multifeed antenna that is also aligned with the HotBird satellites for instance, you will need to change the receiver settings for the DiSEqC signal. The same, of course, also applies to other satellites (DiSEqC = Digital Satellite Equipment Control).

Different control signals are required for the purpose of selecting the satellite signals. To date, the LNB supply voltages 14/18 V and the 22 kHz signal (superimposed on the LNB supply voltage) have been sufficient for signal selection in the majority of applications. With these four switching signals, it is possible to switch between horizontally and vertically polarised signals as well as between satellites (multifeed reception).

However, additional control signals are now required for LNB activation and signal selection in view of the expansion of the frequency range to 12 GHz (high-band range) and for receiving more than two satellites.

The "DiSEqC" control signal is responsible for this task. This signal represents a special modulation of the already existing 22 kHz signal.

DiSEqC setting

The precondition for this setting is that you have made no changes in the DiSEqC (UFO) set-up, refer to the section "DiSEqC (UFO) Set-up".

When you are in the LNB configuration menu (see above), press the

buttons to move the coloured bar to the "HotBird" position, press the or button and press to confirm, that you wish to add a satellite. The transponder data are now stored and a tick appears after "HotBird" to confirm the setting. You can now set the DiSEqC signal. It serves the purpose of switching between the two

aligned satellites. Press the buttons to go to the DiSEqC-1 setting.

Set #1 for ASTRA and #2 for HotBird. Both positions are already pre-programmed. Both positions are already pre-programmed.

Press the 4 times to exit the menu. At the same time, the receiver will confirm that the set parameters are saved. If a setting is incorrect, you will see the following message on the screen:

Bad or no signal

With cascaded switches, a total of 16 satellite positions can be stored under DiSEqC 2. With H/V as well as High/Low this results in a total of 256 settings. You should have a specialist carry out these settings and set-up such a system.

Setting system parameters

Antenna settings

This menu is intended solely for service purposes and, if need be, i.e. if no measuring instrument is available, it can be used to align the antenna (satellite dish).

The satellite can be defined in the first line and the transponder in the second.

The polarisation of the received signal and the transmitted symbol rate are shown in the next line.

The bar displays provide an indication of the strength (relative level) of the signal and its quality. However, no conclusions relating to the quality of the antenna system or of the cable connection can be derived from this signal.

Antenna rotor / Positioner (DiSEqC 1.2)

For operation with a rotor (DiSEqC 1.2), select "on" in the line "Motor/Goto 0."

In the next line "Move/save", you can align the antenna to the west or to the east using the ⬅ or ➡ button. Confirm the selection by pressing (OK). The optimal alignment can be observed by the bar diagram "Level."

In the line "Set limiting value," you can direct the outer focuses (restricted by walls and other hindrances) to west or east using the ⬅ or ➡ button.

In each case, carefully read the operating manual from the rotor's manufacturer (this especially includes other settings than those described above).

Setting system parameters

Satellite search

The receiver allows you to search for programmes on a satellite in the

menu satellite search. With the ⬆⬇ buttons, move to the menu line. In the first line, select if only free-to-air receivable programmes or free-to-air and scrambled programmes should be searched for using the - or + button. Set the desired satellite with the - or + button.

Afterwards, the search starts by pressing OK.

If you wish to set your system to a completely new satellite, you will need to manually enter at least one known transponder in order to start the search (see Section "TP set-up/scan"). You can obtain the necessary information from the corresponding TV and satellite magazines or in the internet.

The signal quality and the search progress are indicated during the search.

Setting system parameters

The message appears at the end of the search.

All programmes are added to the existing programme list and highlighted with various colours.

You can cancel the search by pressing the ⬤ button.

Setting system parameters

TP set-up/search

In this menu, you can scan through the transponders for specific programmes, e.g. when new programmes are offered in the package of a specific broadcaster. You can obtain this information from SAT 1 teletext or corresponding TV and satellite magazines as well as from

the Internet. Press (OK) to open the menu.

Transponder selection
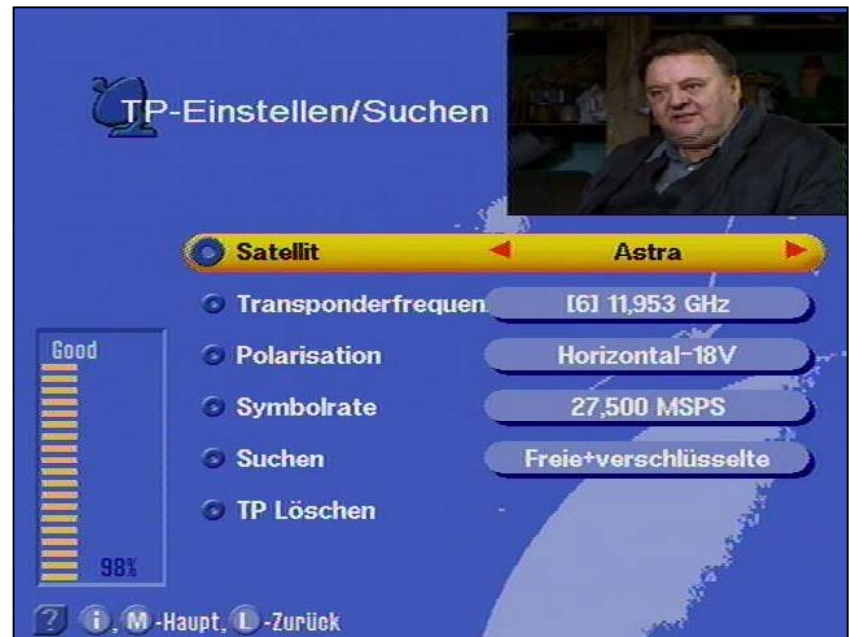
The following settings are now possible (select positions with

):

- Required satellite with or ,

- the transponder frequency with or button,

- the polarisation with or button,

- the symbol rate with the numerical buttons and

- search mode for free-to-air or free and encrypted programmes with the or button.

The bar diagram indicates the relative signal strength and is not an indication for the quality of the receiving system.

Start the search by pressing (OK) in the "search" position.

Setting system parameters

Exit this menu by pressing 🆗 and skip to the previously highlighted programme.

With the 🅛 button, return to this menu once more to search for further transponders.

After an unsuccessful search, the following message appears:

> Error

All new programmes are added to the existing programme list.

Under the menu item „Delete TP," you can remove the transponder

from the programme memory by pressing 🆗. You will be requested to confirm that you wish to remove the transponder before it is deleted.

Setting system parameters

DiSEqC [UFO] Set-up

You should only make changes in this menu, when the receiver is connected to another receiving system with different features or if changes have been made to the receiving system.

Pay close attention to the instructions of your Sat IF system. Before each change, you should note the settings on the form at the end of this operating manual.

Press the menu buttons ⓜ, ◀◆◆▶ and ⓞⓚ to open the DiSEqC menu.

22-kH signal

In this menu point you can determine whether the 22 kHz signal is to be used to switch over between the low and high frequency range of a satellite or between 2 satellite positions.

Tone burst and DiSEqC signal

A DiSEqC control signal is necessary if more than four control criteria are required in a receiving system.

The setting option, i.e. tone burst or DiSEqC, which is required, depends on the components of the receiving system.

Refer to the description of the components (switching matrices) of the receiving system.

Setting system parameters

Tone burst

Under this menu point, the 22 kHz signal can be set as follows:

Switching statuses of setting:		
22-kHz signal —> High/Low and **Tone Burst—> Pos. A/B:**		
Low	22-kHz	Off
High	22-kHz	On
Pos. 1	Tone burst	0
Pos. 2	Tone burst	1

Switching statuses of setting:		
22-kHz signal —> Pos. A/B and **Tone burst —> Opt. A/B**		
Pos	Tone burst	22-kHz
1	0	Off
2	0	On
3	1	Off
4	1	On

Switching statuses of setting:		
22-kHz signal —> Pos. A/B and **Tone Burst —> High/Low**		
Low	Tone burst	0
High	Tone burst	1
Pos. 1	22-kHz	Off
Pos. 2	22-kHz	On

DiSEqC

If the receiver is connected to a DiSEqC switching matrix, you will need to set this menu point to ON.

The switching criteria and the input assignments of the DiSEqC switching matrix must be maintained. Therefore, refer to the description of the switching matrices or contact the installer of the receiving system.

DiSEqC Repeat

The DiSEqC command must be repeated if the receiver is operated (cascaded) together with a receiving system with two or more series connected DiSEqC switching matrices.

In this case, switch the menu point "DiSEqC repeat" to 1 or 2.

Factory presetting: OFF

UFO mini

The input frequency of the receiver is fixed in a "user-controlled processing system". The signals from the "user-controlled processing system" are transmitted on this frequency. The reception parameters for programme selection are transferred to the receiving system by means of a DiSEqC command and set accordingly.

The relevant setting, which needs to be selected, depends on the type of "user- controlled processing system".

The setting should be made according to the data provided in the installation instructions for the "user-controlled processing system".

Remote frequency

If you have set the UFO *mini* menu point to 'ON,' you will need to set the transmission frequency under this menu point.

Refer to the installation instructions of the "user-controlled processing system" for the set transmission frequency.

Therefore, it is important to refer to the information provided in the installation instructions of the "user-controlled processing system".

UFO micro

The setting under this menu point is also designed for operation of the receiver together with a processing system.

Control and communication between the receiver and the Kathrein UFO *micro* system occur via the return path of the coaxial cable. 'ON' must be set under the UFO *micro* menu point, if the receiver is operated together with a UFO *micro* receiving system.

During installation, the receiving system assigns a special address to the receiver so that the control instructions, which are sent from the

Setting system parameters

receiver to the receiving system for signal selection, are also recognised by this system.

A remote frequency must not be set in this operating mode, because it is defined by the UFO micro system as part of the addressing procedure.

You will need to delete the previously allocated address when using the receiver for the first time together with a UFO*micro* receiving system. You can do this under the UFO*micro* menu point by selecting

"Reset" with the ⬥⬥ buttons and pressing 🔘.

The original factory setting is then allocated to the receiver. It must then be reset to ON. The receiver will then receive a new address from the new system.

The pre-programming is not deleted with "Reset".
Presetting: OFF

Factory setting

Under this menu point, you can reset all the settings to the factory

setting by pressing 🔘 .

The factory settings need not necessarily correspond to the settings required for your system!

After the reset, it may be necessary to repeat all settings.

Video recorder connection

The connection diagram provided at the end of this operating manual and the description of the video recorder will show you how you should connect your video recorder to the receiver.

Recording

In order to make a VCR recording, the satellite receiver must be switched on or the timer must be pre-programmed (see section "Timer settings").

Playback

For VCR playback, the satellite receiver must be set to "standby" so that the signal route is switched through from the VCR/AUX SCART socket to the TV SCART socket.

You must set the SCART socket of the Sat receiver to "AUX" with the

📺 button in order for your TV set to automatically play back the picture of the video recorder.
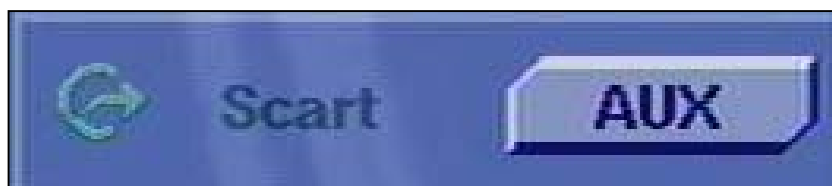
In this setting, the picture of the video recorder is switched through to the TV set during playback.

If you set "SAT" by pressing the 📺 button, the Sat receiver will have priority.
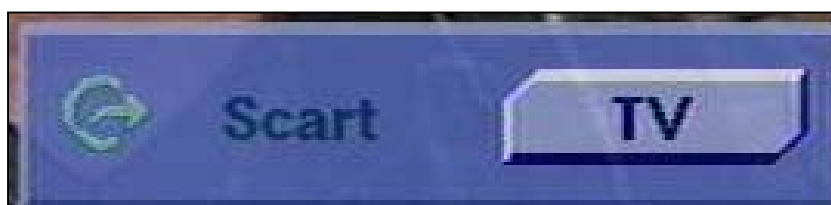
In the "TV" setting, the video signal of the TV set has priority.

Software and programme list update

Thanks to digital technology, the software and programme list of your receiver can also be updated via satellite. Find out if a new software or programme list is available under the submenu software download. Your satellite receiving system must be aligned to ASTRA 19,2° east.

Select the submenu "Installation" with the main menu button 🅜 , the

⬆⬇ buttons and 🆗 . Now, move the cursor bar to the menu

item „Software download" and select it by pressing 🆗 .

Your receiver automatically searches for the ASTRA transponder, which transmits the current software and programme list.

If no new versions exist, you will be notified with an appropriate on-screen display.

Software and programme list update

The light cursor bar in "Software download" can be moved with the

⬆️⬇️ buttons. Press 🆗 in the menu item "Display info" to receive information about the transmitted software and programme list. The menu items "Info text," "programme list" and "operating software" are automatically set to "**Yes**," when new information and contents are available. The lower bar displays the relative signal level.
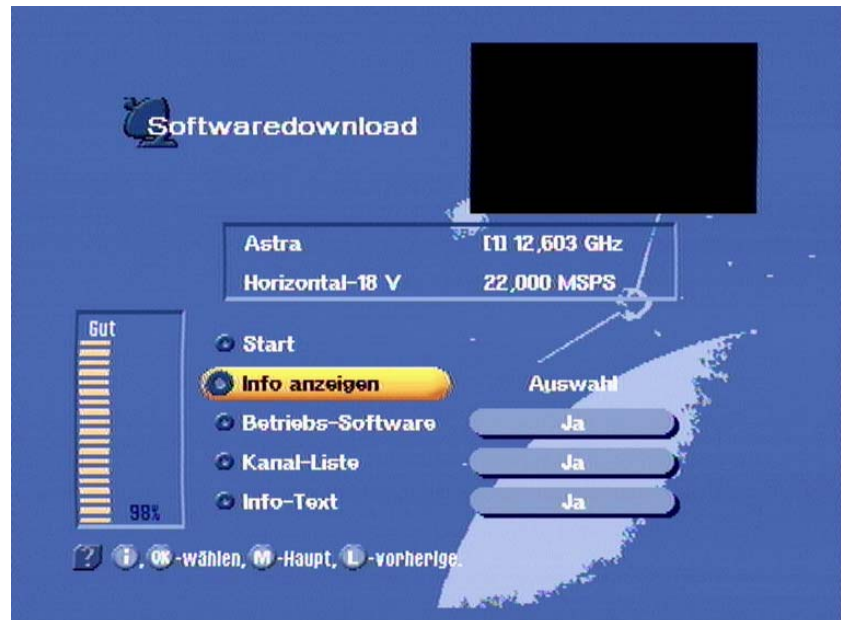
The light cursor bar in "Software download" can be moved to the

position which you want to deactivate (No) using the ⬆️⬇️ and ⬇️

or ⬆️ buttons. Inactive positions cannot be changed. In the case, that you only want to update the software, but not the programme list, deactivate the field "programme list" and vice versa. You can call up the "info text."

For updating, move the cursor bar to "Start" and confirm it with 🆗. Afterwards, the receiver begins with the update and a message below appears on the screen.
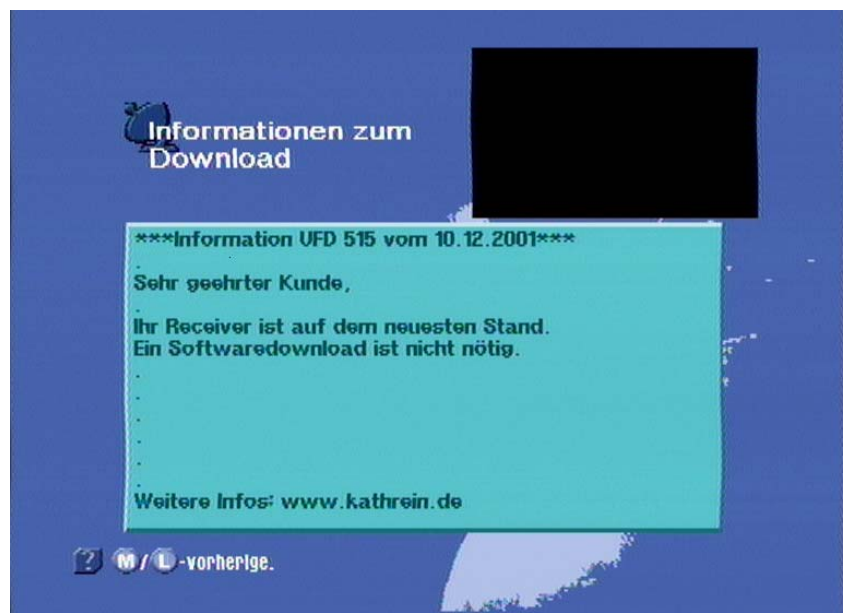
Software and programme list update

After the update is complete, the receiver is newly initialised and returns to operation. If an error or incorrect signal occurs, a message appears "**Download error**."

Never switch the receiver off during the update procedure, or the entire software will be lost. If this should occur, the receiver must be newly installed at the factory or per PC and zero modem cable. During the download, the following message flashes:

„**Please wait**"

> *After the request*
> *„Display info,"*
> *the on-screen display appears with the notice of the new software and the respective changes.*

Observe the on-screen display!

After a software update, you must set the time again!

The updates are also available in the internet under the address: www.esc-kathrein.de/download/ufd/.

Here, you will also find instructions for downloading.
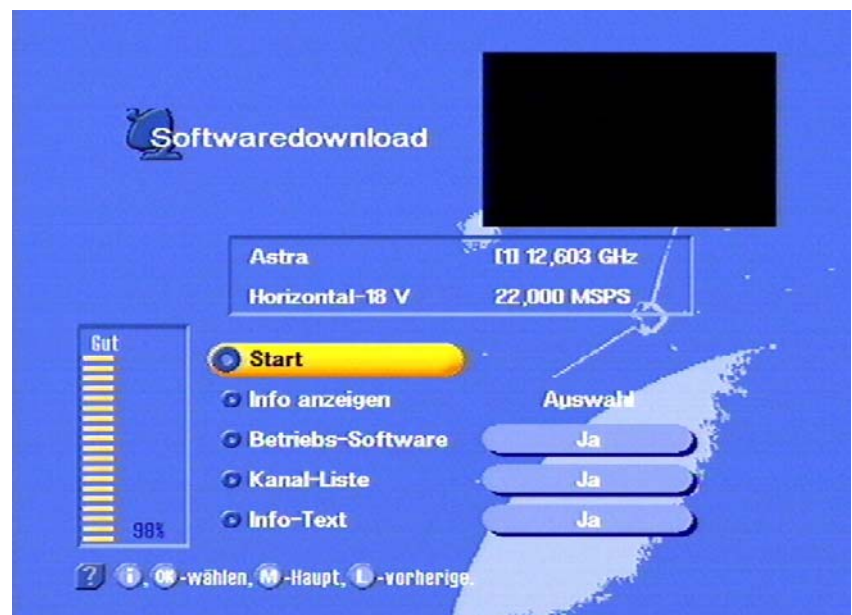
Data transfer from receiver to receiver

Your receiver is able to receive the RS232C socket data from another receiver. To do so, both receivers must be connected via a so-called 'zero modem cable.' The transmitting receiver is in this case the master and the receiving receiver is the slave.

Preparation

The master and slave are first switched to standby mode and then disconnected from the mains by pressing the power switch.

The data sockets of both receivers are connected with the zero modem cable.

The master is then switched on again.

Transferring programme lists

Simultaneously press the ← button (arrow left) and "SELECT" under the front panel of the master to transfer the channel list.

The slave can now be switched on. The transfer procedure begins.

While loading, the display of the master shows "**t001 t002 .. t00n**" while the slave correspondingly shows **"r001 r002..r00n"**.

The LED display shows "----" during block transmission.

The loading procedure was successful, if both receivers show the message "Succ."

Transferring operating software

Follow the same procedure as described above for the purpose of transferring operating software.

Start transfer of the operating software by simultaneously pressing the → button (arrow right) and "SELECT" under the front panel of the master.

While loading, the display of the master shows "**t001 t002 .. t00n**" while the slave correspondingly shows "**r001 r002..r00n**".

The LED display shows "----" during block transmission.

The loading procedure was successful, if both receivers show the message "**Succ**." Should transfer problems occur, "**F * * ***" will appear in the master display where * stands for a numerical value. In this case, check the cable connection and start a new transfer attempt.

The data transfer from receiver to receiver as described above must only be carried out with devices of the same type as otherwise malfunctions or total loss of the operating software may occur.

On no account must the receivers be switched off or the connection interrupted during data transfer. This may otherwise result in data loss, malfunctions or total failure of the operating system.

Always wait until the "**Succ**." or "**F * * ***" message appears on the display.

Technical annex

Technical features

The receiver UFD 515 is equipped with the following features:

Reception of all DVB radio and TV programmes (Free to Air Receiver)

Common Interface for two CA modules (not included in delivery)

Software download via satellite and PC

Loop-through Sat IF input

Teletext processing for TV set

4000 programme memory positions

Satellite reception frequency range from 950 MHz to 2150 MHz

Freely selectable oscillator frequencies, therefore suitable for all feed systems

Timer programmable for 14 events

Timer programming via EPG

Full EPG

Mains switch with mains separation

Automatic settings for date and time via DVB data stream

On-screen display in 8 languages (German, English, French, Italian, Dutch, Spanish, Turkish, Portuguese)

4-digit LED display

22 kHz programmable control signal

DiSEqC 1.1 and tone burst control signal

Operation with UFO*mini* and UFO*micro*

LNB supply voltage, disconnectible

Connection socket for data copying function RS232

Programme assortment function

Programme search

Picture format recognition 4:3 and 16:9 with selectable output format

Mute feature

Volume control

Radio keys

Infrared remote control

2 SCART sockets (TV and VCR/AUX connection)

Additional audio outputs via Cinch sockets

Dolby Digital output (AC3)

RF level display

Technical annex

Technical data

RF features

Sat-IF frequency range	950 to 2150 MHz
Input level range	43 to 83 dBµV
IF frequency	479.5 MHz
Receiving threshold (Eb/No dig.)	≤4.8 dB
Sat-IF input	F-socket with loop-through output
Input impedance	75 Ω

Video

Modulation, FEC, demultiplexer	DVB-S-Standard
Video resolution	CCIR 601 (720 x 576 lines)
Frequency range	20 Hz to 5 MHz
Input data rates	2-45 MSymbols/s
Video decoding	MPEG-1/2- compatible
Bit rate	1.5-15 MB/s
Output voltage	1 V_{ss} / 75 Ω
S/N	≥53 dB typ.

Audio

Audio decoding	MPEG-1/2, Layers 1 and 2
Bit rate	32/44,1/48 kb/s
Frequency range	40 Hz to 15 kHz
Output voltage	typ. 770 ± 50 mV an 10 kΩ (TV-Scart and Cinch)
S/N	≥65 dB

Power supply

Mains voltage	230 V ±10%, 50 Hz
Power consumption	<35 W
Power consumption in standby	<9 W
LNB voltage supply	0, +14 V (vert.), +18 V (hor.)
LNB supply current	400 mA max.
Control signals	22-kHz-square-wave0,6 V_{ss} tone burst
	DiSEqC 1.1
	UFOmicro
	UFOmini

Connections

TV connection	SCART socket, 21-pin
VCR/AUX connection	SCART socket, 21-pin
Audio output	2 x Cinch socket
Dolby Digital output (AC3)	Cinch-socket
Data interface for service purposes	RS 232 Sub D 9-pin

General

Dimensions (W/H/D)	335 / 63 / 280 mm³
Weight approx.	ca. 2.75 kg

Temperature range

Ambient temperature	+5 °C to + 40 °C

CE

Technical annex

Accessories

1 Infrared remote control
2 Batteries 1.5 V, type: LR 03, size: AAA (Micro)
1 SCART cable
1 Set of operating instructions

Scart socket assignments

Signal	Connection no.	TV	VCR/AUX
Audio output, right	1	X	X
Audio input, right	2		X
Audio output, left	3	X	X
Audio earth	4	X	X
Blue earth	5	X	X
Audio input, left	6		X
Blue signal	7	X	X
Switching voltage	8	X	X
Green earth	9	X	X
Data signal	10		
Green signal	11	X	X
Data signal	12		
Red earth	13	X	X
Data earth	14		
Red signal (C)	15	X	X
Blanking signal	16	X	X
Video earth	17	X	X
Blanking signal earth	18	X	X
Video output (FBAS/Y)	19	X	X
Video input	20		X
Connector shield	21	X	X

Switch-over VHS/S-VHS

The Scart sockets can be switched between VHS and S-VHS. The switch-over is carried out in the menu, "System parameter /A/V mode."

at VHS (**RGB**):   at connection 15 lies the RED signal,

                at connection 19 lies the FBAS output.

at S-VHS (**C/Y**):   at connection 15 lies the C output,

                at connection 19 lies the Y-output.

Technical annex

Connection examples

Connection arrangement 1:
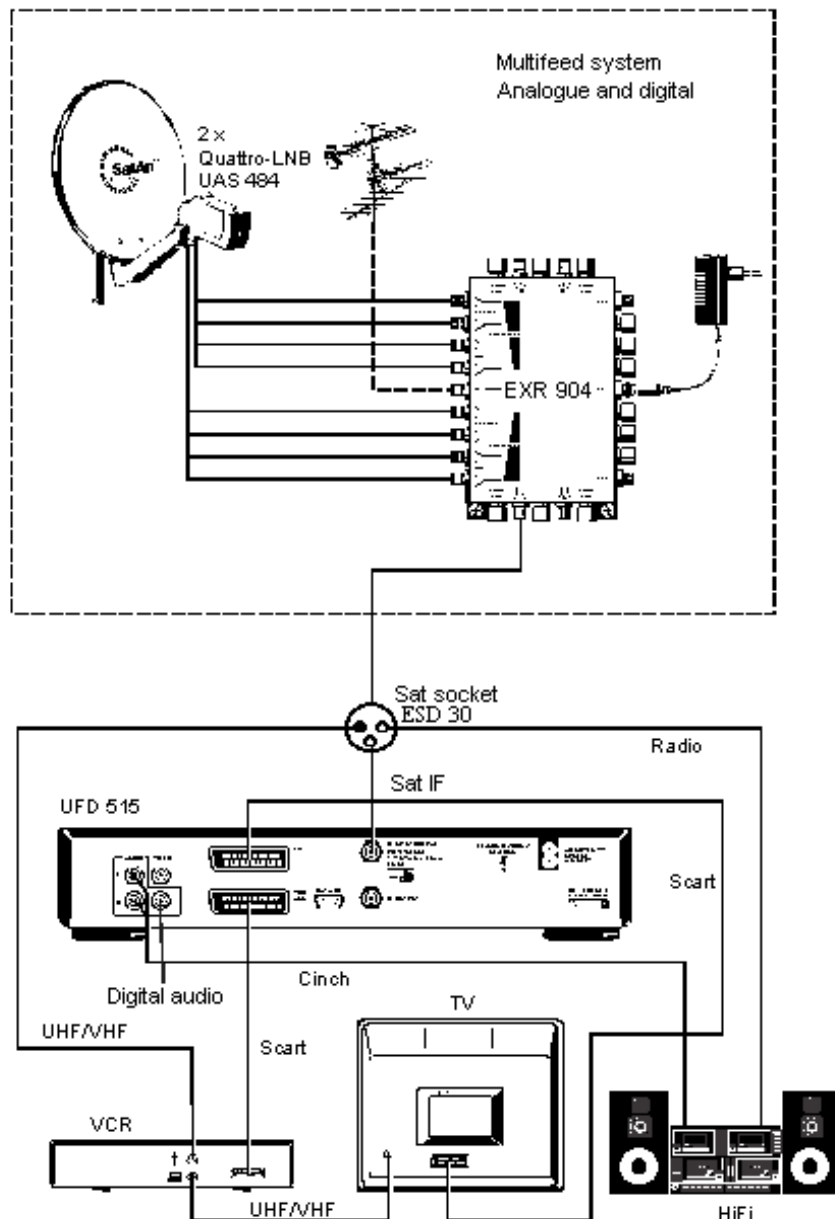
Connection of the DVR-S receiver to a TV set, a VCR and a hi-fi system for receiving and recording digital satellite TV and radio channels. The digital sound output can be connected to a Dolby Digital System.

The connection requires two SCART cables and one Cinch cable. If your TV is equipped for stereo, the stereo sound can also be reproduced via the stereo speakers of your TV set.

The UHF/VHF input of the TV set is connected via the UHF/VHF output and input sockets of the video recorder to the UHF/VHF output of the Sat socket. This connection makes it possible to receive terrestrial regional TV channels with the antenna system correspondingly aligned.

By connecting the antenna input socket of the hi-fi system to the radio output of the Sat socket you can receive terrestrial radio stations.

Technical annex

Connection arrangement 2:
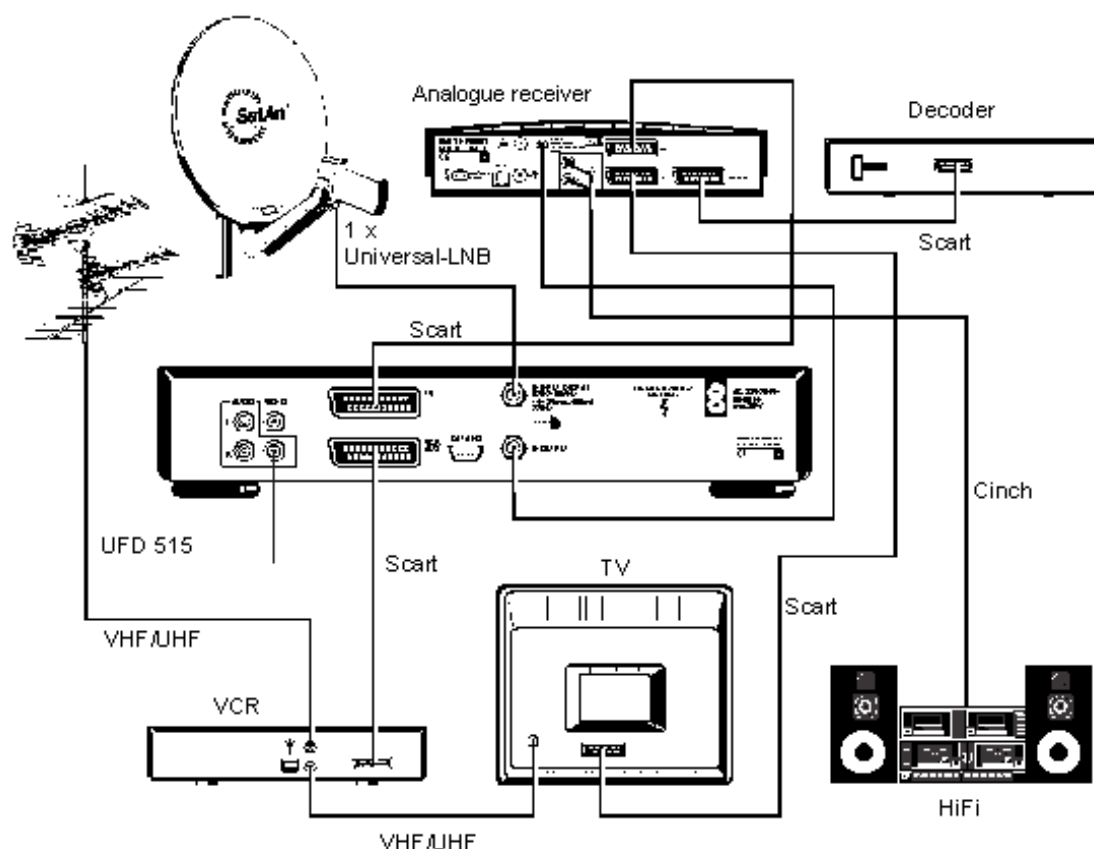
Connection of a DVR-S receiver to an analogue Sat receiver and the complete TV and hi-fi system. The digital sound output can be connected to a Dolby Digital System.

The roof antenna connected via the video recorder to the TV permits the reception and recording of terrestrial programmes.

Short technical lexicon

DiSEqC

DiSEqC (Digital Satellite Equipment Control) is a communication system between the Sat receiver (master) and the peripheral Sat components (slaves), such as LNBs, multi-switch, motorised antenna systems.

This is a single master/multi-slave system, i.e. there is always only one master in the Sat system. All activities emanate from the master.

DiSEqC components

When DiSEqC switching matrices are cascaded, the master receiver must send out the DiSEqC signal several times so that all DiSEqC multi-switches in the cascade receive their commands.

Nowadays, DiSEqC components (slaves) must be retro-compatible, i.e. they must also respond to the analogue switching criteria of receivers which are only equipped with the control signals H/V and 22 kHz.

A DiSEqC switchover matrix operates with analogue switching criteria until the DiSEqC command is received from the master. All analogue switching criteria are then ignored.

DVB MPEG-2

DVB is the abbreviation for digital video broadcasting. DVB-S refers to the type of transmission (S=satellite). MPEG is the abbreviation for Moving Picture Experts Group, a working group which draws up internationally valid standards for the digital compression of video together with audio. MPEG-2 has been promoted to the standard for the compression of digital TV signals. MPEG-2 operates at a data rate of up to 100 MBit/s.

Eb/No ratio

The Eb/No ratio is a measure for the signal-to-noise ratio of the digital signal. This value is not identical to the C/N value as known from analogue reception technology. As a rule, reception is no longer possible at Eb/No levels below 5 dB.

FEC

FEC is the abbreviation for Forward Error Correction. The FEC error rate corresponds to the viterbirate.

PID

The PID number (Package Identification) is an identification number for video signals and audio signals in the digital data stream of DVB MPEG-2 signals. The receiver uses the PID number to establish distinct allocation of the video and audio data transmission. PID-PCR is the identification number for the synchronisation signal. PID-PCR is normally identical to PID video. In the case of multi-language channel transmissions, by means of manual entry of the audio PID, it is possible to allocate another language to the TV broadcast. After entering the PID, the digital receiver automatically selects audio data from the data stream identified by the PID number and allocates these data to the video signal.

Programme package

The programme package of a digital transponder mostly contains several TV and radio channels. Each channel package has a fixed allocation with regard to the transponder transmit frequency, the polarisation (horizontal or vertical), the symbol rate and the viterbirate or error rate.

Symbol rate

The symbol rate describes the amount of data transmitted per second. The symbol rate is measured in MSymbols/s and is equal to the number of symbols that are received per second.

Short technical lexicon

Transponder

A transponder is a satellite transmitter which transmits TV and radio signals. A satellite has several transponders.

Analogue transponders transmit only one TV channel and possibly several radio channels on their transmit frequencies.

Digital transponders simultaneously transmit several TV and several radio channels on their transmit frequencies. When a channel provider broadcasts several TV channels via a digital transponder, this is referred to as the channel package of the channel provider. The terms "digital transponder" and "channel package," therefore have the same meaning.

Video bit rate

The video bit rate describes the quantity of data of the digitised video signal that is transmitted per second.

Viterbirate

The viterbirate (code rate, error rate) characterises the type of error protection used by the channel provider. The DVB standard stipulates the following values: 1/2 -2/ 3 - 3/4 - 4/5 - 5/6 6/7 - 7/8.

Glossary

Audio output	Receiver sound output
AV channel slot	Preferential channel location of TV set for SCART input
Decoder	Decoder Unscrambling unit for pay-TV
DiSEqC	Control system between receiver and LNB, multi-switch
DVB	Digital Video Broadcasting
Eb/No [dB]	Power density per unit of information
Eb/No ratio	Digital signal-to-noise ratio
LED-Display	Receiver display
LNB	Low Noise Block Converter
Mute	Mute switch
OSD	On-screen display
PAL	Analogue television standard
Pay-TV	Pay-TV (e.g. DF1, Premiere)
PCMCIA	Standard of internal decoder interface for pay-TV
PIN	Personal identification number
Receiver	Receiver
RGB	Video signals made up of 3 individual colour signals (red, green, blue)
Satellite-IF signal	Receiver input signal
SCART cable	21-pin connecting cable
Standby	Standby
S-VHS	Super Video Home System (Video recorder-Standard)
Symbol rate	Transmitted data rate of satellite signal
Timer function	Clock function for pre-programmed switch-on and switch-off times
Transponder	See glossary
VCR connection	Video recorder connection
Viterbirate	See glossary

Service

OSD-Language	Picture format	LNB supply

OSD-Language
- ○ German
- ○

Picture format
- ○ 4:3
- ○ 16:9

LNB supply

Operation: Standby:
- ○ ON ○
- ○ OFF ○

Satellite 1	Satellite 2	Satellite 3

Satellite 1

Satellite: _____

LO1: ○ 9750 _____

LO2: ○ 10600 _____

Satellite _____

Satellite 2

Satellite: _____

LO1: ○ 9750 _____

LO1: ○ 10600 _____

Satellite _____

Satellite 3

Satellite: _____

LO1: ○ 9750 _____

LO1: ○ 10600 _____

Satellite _____

DiSEqC menu

22-kHz:	○ High/low	○ PosA/B	○ OFF	
Tone burst:	○ High/low	○ PosA/B	○ Opt.A/B	○ OFF
DiSEqC	○ ON	○ OFF		
DiSEqC repeat	○ ON	○ OFF		
UFOmini	○ ON	○ OFF		
Remote frequency	_____MHz			
UFOmicro	○ ON	○ OFF		

Other settings

- ○   ○   ○
- ○   ○   ○

KATHREIN

Antennen · Electronic